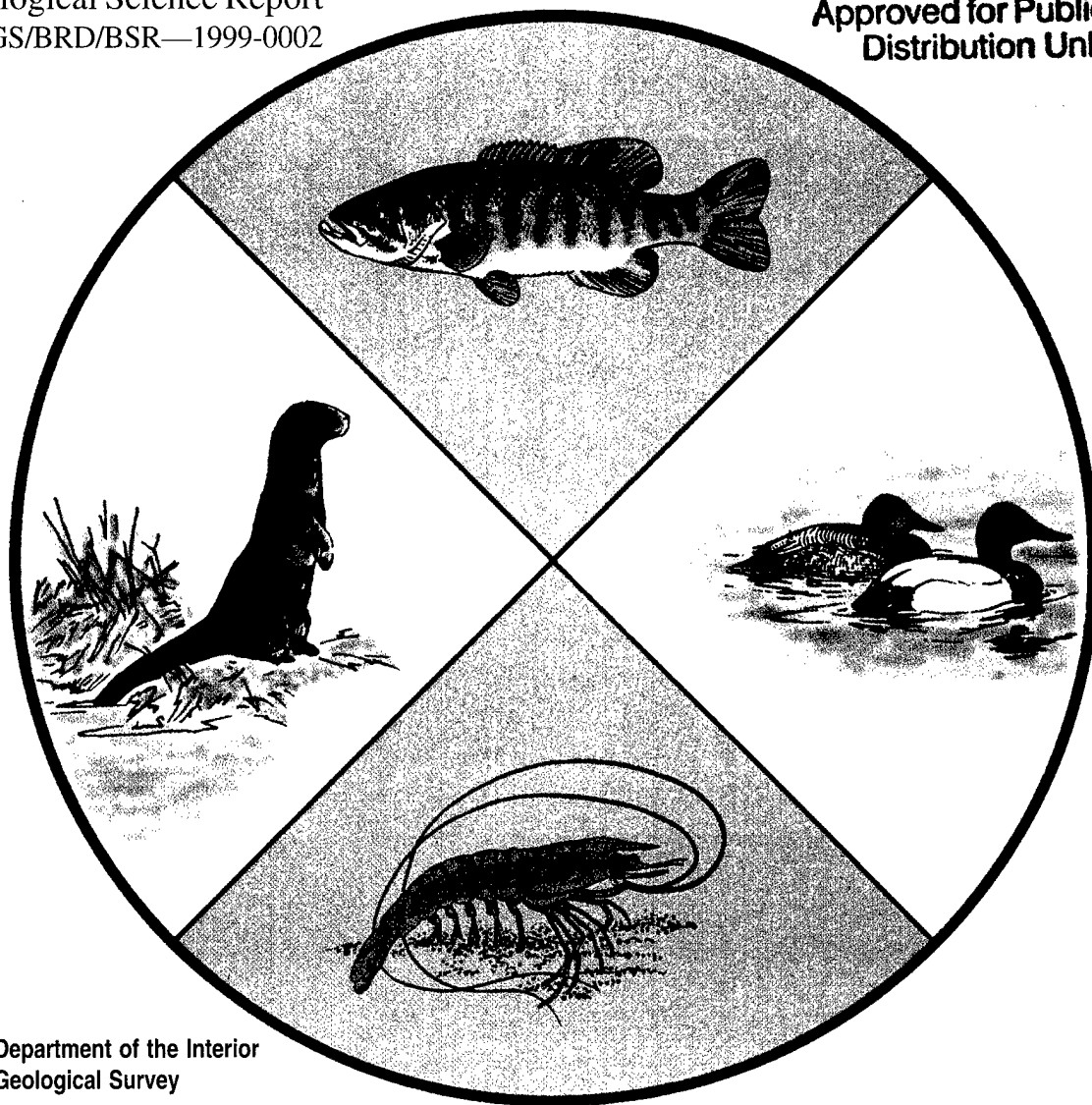


# Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 Through 34

Biological Science Report  
USGS/BRD/BSR—1999-0002

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# **Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 Through 34**

Biological Science Report  
USGS/BRD/BSR—1999-0002  
March 1999

**Contaminant Hazard Reviews Report 35**

By  
Ronald Eisler

U.S. Department of the Interior  
U.S. Geological Survey  
Patuxent Wildlife Research Center  
Laurel, Maryland 20708

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Information about the availability of this report and others in the Contaminant Hazard Reviews series is provided on page 66.

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# Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 Through 34

by  
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**Abstract.** The Contaminant Hazard Reviews (CHR) series—sponsored by the U.S. Geological Survey Patuxent Wildlife Research Center—synthesizes ecotoxicological data for selected environmental contaminants, with emphasis on hazards to native species of flora and fauna. From 1985 through 1998, 34 reviews were published in various report series of the U.S. Department of the Interior on agricultural pesticides (acrolein, atrazine, carbofuran, chlordane, chlorpyrifos, diazinon, diflubenuron, famphur, fenvalerate, mirex, paraquat, toxaphene), metals and metalloids (arsenic, boron, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, tin, zinc), mammalian biocides (sodium monofluoroacetate), organic industrial and municipal wastes (dioxins, pentachlorophenol, polycyclic aromatic hydrocarbons, polychlorinated biphenyls), mining wastes (cyanide), and ionizing radiations. This current report is a cumulative index to the common and scientific names of all biological species listed in the first 34 reports in the CHR series, with individual species cross-referenced with contaminant hazard review and corresponding page numbers. A similar index for chemicals is included.

**Key words:** Index, mirex, cadmium, carbofuran, toxaphene, selenium, chromium, polychlorinated biphenyls, dioxins, diazinon, mercury, nickel, polycyclic aromatic hydrocarbons, arsenic, chlorpyrifos, lead, tin, pentachlorophenol, atrazine, molybdenum, boron, chlordane, paraquat, cyanide, fenvalerate, diflubenuron, zinc, famphur, acrolein, radiation, sodium monofluoroacetate, silver, copper, wildlife, birds, mammals, amphibians, reptiles, fish, invertebrates, plants

## Introduction

A series of 34 Contaminant Hazard Reviews (CHR) was published between 1985 and 1998 under the aegis of the Patuxent Wildlife Research Center in direct response to requests for information from environmental specialists of the U.S. Fish and Wildlife Service and other scientists and resource managers in the U.S. Department of the Interior. Each CHR synthesized ecological and toxicological information of a single environmental contaminant, with emphasis on native fishery and wildlife resources. Specifically, reviews were prepared on selected agricultural insecticides, herbicides, animal control agents, metals, metalloids, organic industrial wastes, mining wastes, and ionizing radiations. Financial support for the CHR series was provided by the U.S. Fish and Wildlife Service, the National Biological Survey, the National Biological Service,

and, most recently, the U.S. Geological Survey (Table). Page 66 of this report provides information on obtaining copies of the CHR reports.

This report presents an index for all chemicals and chemical trade names listed in CHR's 1 through 34; a similar index is included for the common and scientific names of all biological species. This publication is the second index to the CHR series. The first index—CHR 16 (Eisler and Corley 1989)—listed the common and scientific names of species in CHR's 1 through 15 but did not include chemicals and chemical trade names. The current index issue—CHR 35—supersedes CHR 16. This index was also prepared at the request of environmental specialists of the U.S. Fish and Wildlife Service and various natural resource managers in the U.S. Department of the Interior. It should also be a useful resource to the many other users of the CHR reviews.

**Table.** Publications in the Contaminant Hazard Reviews (CHR) series by CHR number, subject, report series and number, and author(s).

CHR No.	Subject	Report series and number <sup>a</sup>	Author(s)
1	Mirex	FWS 85 (1.1)	Eisler (1985a)
2	Cadmium	FWS 85 (1.2)	Eisler (1985b)
3	Carbofuran	FWS 85 (1.3)	Eisler (1985c)
4	Toxaphene	FWS 85 (1.4)	Eisler and Jacknow (1985)
5	Selenium	FWS 85 (1.5)	Eisler (1985d)
6	Chromium	FWS 85 (1.6)	Eisler (1986a)
7	Polychlorinated Biphenyls	FWS 85 (1.7)	Eisler (1986b)
8	Dioxins	FWS 85 (1.8)	Eisler (1986c)
9	Diazinon	FWS 85 (1.9)	Eisler (1986d)
10	Mercury	FWS 85 (1.10)	Eisler (1987a)
11	Polycyclic Aromatic Hydrocarbons	FWS 85 (1.11)	Eisler (1987b)
12	Arsenic	FWS 85 (1.12)	Eisler (1988a)
13	Chlorpyrifos	FWS 85 (1.13)	Odenkirchen and Eisler (1988)
14	Lead	FWS 85 (1.14)	Eisler (1988b)
15	Tin	FWS 85 (1.15)	Eisler (1989a)
16	Index to Species	FWS 85 (1.16)	Eisler and Corley (1989)
17	Pentachlorophenol	FWS 85 (1.17)	Eisler (1989b)
18	Atrazine	FWS 85 (1.18)	Eisler (1989c)
19	Molybdenum	FWS 85 (1.19)	Eisler (1989d)
20	Boron	FWS 85 (1.20)	Eisler (1990a)
21	Chlordane	FWS 85 (1.21)	Eisler (1990b)
22	Paraquat	FWS 85 (1.22)	Eisler (1990c)
23	Cyanide	FWS 85 (1.23)	Eisler (1991)
24	Fenvalerate	FWS 2	Eisler (1992a)
25	Diffubenzuron	FWS 4	Eisler (1992b)
26	Zinc	FWS 10	Eisler (1993)
27	Famphur	NBSY 20	Eisler (1994a)
28	Acrolein	NBSY 23	Eisler (1994b)
29	Radiation	NBS 26	Eisler (1994c)
30	Sodium Monofluoroacetate (1080)	NBS 27	Eisler (1995)
31	Planar PCBs	NBS 31	Eisler and Belisle (1996)
32	Silver	NBS 32	Eisler (1996)
33	Copper	USGS 1997-0002	Eisler (1998a)
34	Nickel	USGS 1998-0001	Eisler (1998b)

<sup>a</sup> FWS = Biological Report series of the U.S. Fish and Wildlife Service (CHR 1 through 26); NBSY = Biological Report series of the U.S. National Biological Survey (CHR 27 and 28); NBS = Biological Report series of the U.S. National Biological Service (CHR 29-32); USGS = Biological Science Report series of the U.S. Geological Survey (CHR 33 and 34).

## Index to Chemicals

All chemicals, chemical trade names, and other substances with known biological properties listed in CHR's 1 through 34—a total of 1,570—are presented in Section 1. Each listed chemical is followed by a **boldfaced number** between 1 and 34 (this number corresponds to the CHR report number listed in Table) and nonbolded numbers that designate the pages in that report.

## Index to Species

Taxonomic nomenclatures for plants and animals are under constant revision. In this report, I elected to conform as much as possible to the systems and spellings used

by Scott and Wasser (1980) for plants, Swain and Swain (1948) for insects, Turgeon et al. (1988) for aquatic mollusks, Williams et al. (1989) for decapod crustaceans, Pratt (1935) and Hyman (1940, 1951a, 1951b, 1955) for miscellaneous invertebrates, Robins et al. (1991) for fishes, Ditmars (1966) for reptiles, Edwards (1974) and Howard and Moore (1991) for birds, and Nowak and Paradiso (1983) for mammals. Individual species are arranged alphabetically by scientific and common name (Section 2). Each scientific name is followed by a **boldfaced number** between 1 and 34 (this number corresponds to the CHR report number listed in Table) and nonbolded numbers that designate the pages in that report.



In total, 2,233 species of animals and plants were cited, of which only 23 (1.03%) were listed in at least 20 CHR reports. The most widely cited species included one species of plant (corn, *Zea mays*), two species of invertebrates (freshwater crustacean, *Daphnia magna*; American oyster, *Crassostrea virginica*), seven species of teleosts (channel catfish, *Ictalurus punctatus*; bluegill, *Lepomis macrochirus*; coho salmon, *Oncorhynchus kisutch*; rainbow trout, *Oncorhynchus mykiss*; fathead minnow, *Pimephales promelas*; brook trout, *Salvelinus fontinalis*; lake trout, *Salvelinus namaycush*), three species of birds (mallard, *Anas platyrhynchos*; domestic chicken, *Gallus* sp.; Japanese quail, *Coturnix japonica*), and ten species of mammals (cow, *Bos* spp.; domestic dog, *Canis familiaris*; guinea pig, *Cavia* spp.; domestic cat, *Felis domesticus*; human, *Homo sapiens*; hamster, *Cricetus* spp.; domestic mouse, *Mus* spp.; domestic sheep, *Ovis aries*; laboratory white rat, *Rattus* spp.; and domestic pig, *Sus* spp.). It is probable that these species are not representative of unusually sensitive or endangered species, but they can be considered appropriate sentinel organisms for many species of free-living wildlife.

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I thank Henry C. Bourne for computer assistance; W. Nelson Beyer, Lynda J. Garrett, and Ann Zimmerman for technical review; Shannon E. Price and Beth A. Vairin for editorial services; and Susan M. Lauritzen and Natalie Gormanous Trahan for layout.

### Literature Cited

- Ditmars, R.L. 1966. Reptiles of the world. Macmillan, New York, N.Y. 321 pp. + 89 plates.
- Edwards, E.P. 1974. A coded list of birds of the world. Ernest P. Edwards, Sweet Briar, Va. 174 pp.
- Eisler, R. 1985a. Mirex hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.1), Contaminant Hazard Reviews Report 1. 42 pp.
- Eisler, R. 1985b. Cadmium hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.2), Contaminant Hazard Reviews Report 2. 46 pp.
- Eisler, R. 1985c. Carbofuran hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.3), Contaminant Hazard Reviews Report 3. 36 pp.
- Eisler, R. 1985d. Selenium hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.5), Contaminant Hazard Reviews Report 5. 57 pp.
- Eisler, R. 1986a. Chromium hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.6), Contaminant Hazard Reviews Report 6. 60 pp.
- Eisler, R. 1986b. Polychlorinated biphenyl hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.7), Contaminant Hazard Reviews Report 7. 72 pp.
- Eisler, R. 1986c. Dioxin hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.8), Contaminant Hazard Reviews Report 8. 37 pp.
- Eisler, R. 1986d. Diazinon hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.9), Contaminant Hazard Reviews Report 9. 37 pp.
- Eisler, R. 1987a. Mercury hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.10), Contaminant Hazard Reviews Report 10. 90 pp.
- Eisler, R. 1987b. Polycyclic aromatic hydrocarbon hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.11), Contaminant Hazard Reviews Report 11. 81 pp.
- Eisler, R. 1988a. Arsenic hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.12), Contaminant Hazard Reviews Report 12. 92 pp.
- Eisler, R. 1988b. Lead hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.14), Contaminant Hazard Reviews Report 14. 134 pp.
- Eisler, R. 1989a. Tin hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.15), Contaminant Hazard Reviews Report 15. 83 pp.
- Eisler, R. 1989b. Pentachlorophenol hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.17), Contaminant Hazard Reviews Report 17. 72 pp.
- Eisler, R. 1989c. Atrazine hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.18), Contaminant Hazard Reviews Report 18. 53 pp.
- Eisler, R. 1989d. Molybdenum hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.19), Contaminant Hazard Reviews Report 19. 61 pp.
- Eisler, 1990a. Boron hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.20), Contaminant Hazard Reviews Report 20. 32 pp.
- Eisler, R. 1990b. Chlordane hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife

- Service Biological Report 85 (1.21), Contaminant Hazard Reviews Report 21. 49 pp.
- Eisler, R. 1990c. Paraquat hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.22), Contaminant Hazard Reviews Report 22. 28 pp.
- Eisler, R. 1991. Cyanide hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.23), Contaminant Hazard Reviews Report 23. 55 pp.
- Eisler, R. 1992a. Fenvalerate hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 2, Contaminant Hazard Reviews Report 24. 43 pp.
- Eisler, R. 1992b. Diflubenzuron hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 4, Contaminant Hazard Reviews Report 25. 36 pp.
- Eisler, R. 1993. Zinc hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 10, Contaminant Hazard Reviews Report 26. 106 pp.
- Eisler, R. 1994a. Famphur hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Survey Biological Report 20, Contaminant Hazard Reviews Report 27. 23 pp.
- Eisler, R. 1994b. Acrolein hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Survey Biological Report 23, Contaminant Hazard Reviews Report 28. 29 pp.
- Eisler, R. 1994c. Radiation hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 26, Contaminant Hazard Reviews Report 29. 124 pp.
- Eisler, R. 1995. Sodium monofluoroacetate (1080) hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 27, Contaminant Hazard Reviews Report 30. 47 pp.
- Eisler, R. 1996. Silver hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 32, Contaminant Hazard Reviews Report 32. 44 pp.
- Eisler, R. 1998a. Copper hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Geological Survey Biological Science Report USGS/BRD/BSR--1997-0002, Contaminant Hazard Reviews Report 33. 98 pp.
- Eisler, R. 1998b. Nickel hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Geological Survey Biological Science Report USGS/BRD/BSR--1998-0001, Contaminant Hazard Reviews Report 34. 76 pp.
- Eisler, R., and A.A. Belisle. 1996. Planar PCB hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 31, Contaminant Hazard Reviews Report 31. 75 pp.
- Eisler, R., and J.H. Corley. 1989. Index to common and scientific names of species listed in Contaminant Hazard Reviews 1-15. U.S. Fish and Wildlife Service Biological Report 85 (1.16), Contaminant Hazard Reviews Report 16. 44 pp.
- Eisler, R., and J. Jacknow. 1985. Toxaphene hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.4), Contaminant Hazard Reviews Report 4. 26 pp.
- Howard, R., and A. Moore. 1991. A complete checklist of the birds of the world. Second edition. Academic Press, New York. 622 pp.
- Hyman, L.H. 1940. The invertebrates. Volume 1. Protozoa through ctenophora. McGraw-Hill, New York. 726 pp.
- Hyman, L.H. 1951a. The invertebrates. Volume 2. Platyhelminthes and rhyncocoela. The acoelomate bilateria. McGraw-Hill, New York. 550 pp.
- Hyman, L.H. 1951b. The invertebrates. Volume 3. Acanthocephala, aschelminthes, and entoprocta. The pseudocoelomate bilateria. McGraw-Hill, New York. 572 pp.
- Hyman, L.H. 1955. The invertebrates. Volume 4. Echinodermata. The coelomate bilateria. McGraw-Hill, New York. 763 pp.
- Nowak, R.M., and J.L. Paradiso. 1983. Walker's mammals of the world. Volumes I and II. Johns Hopkins University Press, Baltimore. xlv + 1362 pp.
- Odenkirchen, E.W., and R. Eisler. 1988. Chlorpyrifos hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.13), Contaminant Hazard Reviews Report 13. 34 pp.
- Pratt, H.S. 1935. A manual of the common invertebrate animals. P. Blakiston's Son and Company, Philadelphia. 854 pp.
- Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea, and W.B. Scott. 1991. Common and scientific names of fishes from the United States and Canada. Fifth edition. American Fisheries Society Special Publication 20. 183 pp.
- Scott, T.G., and C.H. Wasser. 1980. Checklist of North American plants for wildlife biologists. The Wildlife Society, 7101 Wisconsin Ave. NW, Washington, DC. 58 pp.
- Swain, R.B., and S.N. Swain. 1948. The insect guide. Doubleday, New York. 261 pp.
- Turgeon, D.D., A.E. Bogan, E.V. Coan, W.K. Emerson, W.G. Lyons, W.L. Pratt, C.F.E. Roper, A. Scheltema, F.G. Thompson, and J.D. Williams. 1988. Common and scientific names of aquatic invertebrates from the United States and Canada: mollusks. American

Fisheries Society Special Publication 16. 227 pp. + 12 plates.  
Williams, A.B., L.G. Abele, D.L. Felder, H.H. Hobbs, Jr., R.B. Manning, P.A. McLaughlin, and I.P.

Farfante. 1989. Common and scientific names of aquatic invertebrates from the United States and Canada: decapod crustaceans. American Fisheries Society Special Publication 17. 77 pp. + 4 plates.

## Section 1: Index to Chemicals

Chemical and trade names of substances listed in the Contaminant Hazard Reviews (CHR) series. Substances are indexed by **CHR report number** and by page numbers within each CHR report.

- 1068: 21 4.  
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 Amdro: 1 34.  
 American Cyanamid 38023: 27 4.  
 Americium-241: 29 7, 14, 15, 20, 21, 24-26, 28, 34, 35, 38-40, 43, 46, 72, 78, 88, 89, 91, 97, 98, 101, 102, 105.  
 Americium-243: 29 7, 101.  
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 4,4'-Dichloro-3-biphenylol: **31** 59.  
 1,2-Dichlorochlordene: **21** 4, 5.  
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 2,8-Dichlorodibenzodioxin: **8** 25.  
 Dichloromaleic acid: **17** 11.  
 2,4-Dichlorophenol: **17** 8.  
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 Dichromate ion: **6** 3.  
 Dicobalt ethylenediamine tetraacetic acid: **23** 10.  
 Dicrotophos: **27** 12.  
 Dicyclohexyltin dichloride: **15** 36.  
 Dieldrin: **1** 24, 31; **4** 3, 7; **7** 52; **21** 27.  
 Diethyldithiocarbamate: **22** 18.  
 Diethylenetriamine pentaacetic acid: **34** 9.  
 Diethyl 2-isopropyl-6-methylpyrimidin-4-yl phosphate: **9** 6.  
 Diethyllead: **14** 67.  
 Diethylnitrosamine: **28** 24; **34** 11.  
 Diethylorganotins: **15** 8.  
 Diethyl phosphoric acid: **9** 24.  
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 Diethyltin dichloride: **15** 36.  
 Diethyltin diiodide: **15** 1.  
 Diethyltins: **15** 15, 54.  
 N-N-Diethyl-*m*-toluamide: **24** 36.  
 0,0-Diethyl-0-(3,5,6-trichloro-2-pyridyl) phosphate: **13** 10.  
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 1-(2,6-Difluorobenzoyl)-3-(4-chlorophenyl)urea: **25** 3.  
 2,6-Difluorohippuric acid: **25** 31.  
 2,6-Difluoro-3-hydroxydiflubenzuron: **25** 31.  
 1,3-Difluoro-2-propanol: **30** 12, 41.  
 2,3-Dihydro-2,2-dimethyl-7-benzofuranyl methyl carbamate: **3** 3.  
 2,8-Dihydromirex: **1** 28.  
 3,8-Dihydromirex: **1** 28.  
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 2,3-Dimercapto-1-propane sulfonic acid: **26** 12.  
 2,3-Dimercaptopropanol: **10** 11; **34** 65.  
 N-(2,3-Dimercaptopropyl) phthalamidic acid: **12** 12.  
 2,3-Dimercaptosuccinic acid: **26** 12.  
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 Dimethylarsinous acid: **12** 10.  
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 1,1'-Dimethyl-4,4'-bipyridinium: **22** 1-28.  
 1,1'-Dimethyl-4,4'-bipyridinium chloride: **22** 1-28.  
 O,O-Dimethyl O, *p*-(N,N-dimethylsulfamoyl) phenyl phosphorothioate: **27** 4.  
 Dimethyl diselenide: **5** 4.  
 Dimethyl *p*-(dimethylsulfamoyl)phenyl phosphorothioate: **27** 4.  
 O,O-Dimethyl O-[*p*-(dimethylsulfamoyl)-phenyl] phosphorothioate: **27** 4.

- O,O-Dimethyl-O-*p*-(dimethylsulfamoyl)phenyl phosphorothioate: 27 4.  
 O,O-Dimethyl hydrogen phosphorothioate, O-ester with *p*-hydroxy-N,N-dimethylbenzenesulfonamide: 27 4.  
 Dimethyllead: 14 67.  
 Dimethyl maleate: 22 18.  
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 O, O-Dimethyl O-(*p*-nitrophenyl) phosphorothioate: 27 8.  
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 N-N-Dimethylquinoneimine: 23 10.  
 Dimethyl selenide: 5 4; 12 11.  
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*p*-(Dimethylsulfamoyl)phenyl dimethyl phosphorothioate: 27 4.  
*p*-(N,N-Dimethylsulfamoyl)phenyl glucuronide: 27 3, 5, 17, 19.  
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 Dimethyltin dichloride: 15 36, 52.  
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## Section 2: Index to Species

Common and scientific names of plants and animals listed in the Contaminant Hazard Reviews (CHR) series. Individual species are indexed by scientific name, by **CHR report number** and by page numbers within each CHR report. References are provided from common names to scientific names.

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*gatumense*, *Phormidium inundatum*, *Platymonas*  
*subcordiformis*, *Plectonema boryanum*, *Polygonum*  
*sp.*, *Procentrum micans*, *Prorocentrum mariae-*  
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*Almond*, bitter, *Prunus dulcis*  
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*Ambystoma maculatum*: 33 39.  
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*Ambystoma opacum*: 10 47; 12 47; 14 72; 26 64; 33 62;  
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*Ambystoma tigrinum*: 11 24, 49.  
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*Anacystis nidulans*: 5 31; 20 15; 26 66; 34 40, 47.  
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*Anarhichas minor*: 14 32.  
*Anas acuta*: 3 1; 7 16; 14 2, 42, 75; 30 18.  
*Anas americana*: 3 1; 30 18.  
*Anas carolinensis*: 3 1; 29 82.  
*Anas clypeata*: 7 16; 2 1, 34; 29 82.  
*Anas discors*: 10 32; 21 34; 26 27, 43; 29 82.  
*Anas fulvigula*: 14 42.  
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*Anguilla rostrata*: 8 11; 29 29; 31 37; 34 43.  
*Anguilla* sp.: 1 27; 5 6, 37; 31 32.  
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*Anodonta grandis*: 33 17, 40, 49.  
*Anodonta nuttalliana*: 26 67.  
*Anodonta piscinalis*: 33 17, 35.  
*Anomalocera* sp.: 26 69.  
*Anopheles quadrimaculatus*: 30 15.  
*Anopheles stephensi*: 24 15.  
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*Anser* spp.: 9 iii, 1, 14; 12 76; 18 36; 26 27; 33 26.  
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     *Veromessor andrei*  
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     Various, *Lipaphis erysimi*, *Macrosiphium gei*  
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*Aphis fabae*: 33 46.  
*Apis cerama*: 24 15.  
*Apis mellifera*: 9 1, 13; 12 42, 44; 20 14; 22 7, 8; 24 14,  
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*Arbacia punctulata*: 7 48; 34 42.  
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 Barley, *Hordeum vulgare*  
 Barnacle, *Balanus*, *Elminius*, *Semibalanus*  
*Barnardius zonarius*: 30 19.  
 Barn-owl, common, *Tyto alba*  
 Bass  
 Barred sand, *Paralabrax nebulifer*  
 Black sea, *Centropristes striata*  
 European sea, *Dicentrarchus labrax*  
 Kelp, *Paralabrax clathratus*  
 Largemouth, *Micropterus salmoides*  
 Rock, *Ambloplites rupestris*  
 Sea, *Lateolabrax japonicus*  
 Smallmouth, *Micropterus dolomieu*  
 Striped, *Morone saxatilis*  
 Various, *Micropterus*  
 White, *Morone chrysops*  
 Bat  
 Big brown, *Eptesicus fuscus*  
 Common pipistrelle, *Pipistrellus pipistrellus*  
 Dutch pond, *Myotis dasycneme*  
 Eastern big-eared, *Plecotus phyllotis*  
 Gray, *Myotis grisescens*  
 Greater horseshoe, *Rhinolophus ferrumequinum*  
 Indiana, *Myotis sodalis*  
 Little brown, *Myotis lucifugus*  
 Schreiber's, *Miniopterus schreibersi*  
 Southeastern, *Myotis austroriparius*  
 Bats: 14 3, 44, 53, 99; 17 2; 21 23; 23 4; 31 46.  
 Bean  
 Buck, *Menyanthes trifoliata*  
 Castor, *Ricinus communis*

- Green, *Phaseolus vulgaris*  
 Jack, *Canavalia* sp.  
 Lima, *Phaseolus lunatus*  
 Various, *Phaseolus* sp., *Vicia faba*  
 Bear, polar, *Ursus maritimus*  
 Bears: 23 12.  
 Beaver  
   Common, *Castor canadensis*  
   Mountain, *Aplodontia rufa*  
*Becium homblei*: 33 39.  
 Bee  
   Alfalfa leaf cutter, *Megachile rotundata*  
   Alkali, *Nomia melanderi*  
   Bumble, *Bombus* spp.  
   Cuckoo bumble, *Psithyrus bohemicus*  
   Honey, *Apis mellifera*  
   Indian hive, *Apis cerama*  
 Beet, *Beta vulgaris*  
 Beetle  
   Aquatic, *Hydrophilus triangularis*, *Laccophilus* spp.,  
     *Thermonectes basillaris*, *Tropisternus lateralis*  
   Burying, *Nicrophorus tomentosus*  
   Colorado potato, *Leptinotarsa decemlineata*  
   Convergent lady, *Hippodamia convergens*  
   Ground, *Calosoma* sp.  
   Leaf, *Paropsis atomaria*  
   Sawtoothed grain, *Oryzaephilus surinamensis*  
   Tiger, *Megacephala virginica*  
   Various, *Cotesia melanoscela*, *Dendroides* sp.,  
     *Diachasmimorpha longicaudata*, *Perga dorsalis*  
   Yellow mealworm, *Tenebrio molitor*  
*Bellerochea polymorpha*: 20 16.  
*Bemisia tabaci*: 24 14.  
*Berardius bairdii*: 31 28.  
*Beroe cucumis*: 20 9.  
 Berry  
   Bil, *Vaccinium myrtillus*  
   Bog whortle, *Vaccinium uliginosum*  
   Cow, *Vaccinium vitis-idaea*  
*Beta vulgaris*: 7 29; 12 43; 19 22; 20 12; 22 2, 24; 34  
   34, 39.  
*Beta vulgaris cicla*: 14 25; 15 28.  
 Bettong  
   Brush-tailed, *Bettongia penicillata*  
   Burrowing, *Bettongia leseur*  
*Bettongia leseur*: 30 26.  
*Bettongia penicillata*: 30 30.  
*Betula nana*: 29 54.  
*Betula papyrifera*: 34 20.  
*Betula* sp.: 29 48, 50, 56.  
 Bilberry, *Vaccinium* sp.  
 Bilby, greater, *Macrotus lagotis*  
 Billfishes: 10 40.  
*Biomphalaria* spp.: 15, 16, 38-41, 45-47; 22 9; 26 54; 28  
   11; 33 50.  
 Birch  
   Dwarf, *Betula nana*  
   Paper, *Betula papyrifera*  
   Various, *Betula* sp.  
*Birgus latro*: 29 43.  
 Bison  
   American, *Bison bison*  
   European, *Bison bonasus*  
*Bison bison*: 33 30.  
*Bison bonasus*: 33 30.  
*Blaberus giganteus*: 29 70.  
 Blackbird  
   Brewer's, *Euphagus cyanocephalus*  
   Common, *Turdus merula*  
   Red-winged, *Agelaius phoeniceus*  
 Blackfish  
   Common, *Gadopsis marmoratus*  
   Largescale, *Girella punctata*  
 Blackfly, *Simulium* sp.  
 Blacktail, *Diplodus sargus*  
*Blarina brevicauda*: 2 13, 25; 3 17; 14 43, 47, 52, 53; 26  
   38; 29 84.  
*Blattella germanica*: 13 1; 20 13, 14; 22 9; 25 8.  
 Bleak, *Alburnus alburnus*  
*Blepharisma undulans*: 24 14.  
*Blidingia minima*: 14 25.  
*Blissus leucopterus listus*: 13 22.  
 Bloater, *Coregonus hoyi*  
 Blueberry  
   Common, *Vaccinium pallidum*  
   Lowbush, *Vaccinium angustifolium*  
 Bluebird, eastern, *Sialia sialis*  
 Bluefish, *Pomatomus saltatrix*  
 Bluegill, *Lepomis macrochirus*  
 Bluestem, little, *Andropogon scoparius*  
 Boar, wild, *Sus scrofa*  
 Bobcat, *Lynx rufus*  
 Bobwhite, common, *Colinus virginianus*  
*Boleophthalmus dussumieri*: 5 36; 6 20, 31.  
 Boll weevil, *Anthonomus grandis*  
 Bollworm, Lepidoptera  
 Bolti, *Tilapia zilli*  
*Bombina variegata*: 33 25.  
*Bombus* spp.: 33 16.  
*Bombyx mori*: 12 11; 29 70, 71.  
*Bonasa umbellus*: 14 37; 15 32; 29 32, 41; 32 16; 33 26;  
   34 27, 35.  
 Booby  
   Brown, *Sula leucogaster*  
   Red-footed, *Sula sula*  
   Various, *Sula*  
*Boophilus* spp.: 27 13.



- Boreogadus saida*: 31 34.  
*Bos bovis*: 2 13; 3 24; 6 40, 41; 7 54; 8 1; 12 2, 33, 62; 14 43, 53; 15 32; 21 23, 37; 25 2, 3.  
*Bos indicus*: 27 1, 3, 12, 14, 16.  
*Bos* spp.: 1 33; 3 15, 24; 4 8, 18, 19; 5 1, 26, 28, 29, 39, 41, 44; 6 4, 41; 7 54; 8 13; 12 11, 12, 62, 63, 72, 73; 13 12, 16; 14 3, 12, 14, 48, 53, 57, 88, 89, 99, 103, 104; 15 64; 17 2, 42-44, 54; 18 36, 37; 19 iii, 1, 5, 6, 16, 17, 19, 21, 22, 30-33, 41, 42, 44, 46; 20 4, 10, 21, 26; 21 5, 24, 42; 22 4, 17, 23; 23 4, 12, 33, 36; 24 10, 29, 30, 36; 25 27-29, 32; 26 3, 9, 10, 12, 15, 31, 44, 46-48, 78, 85, 86, 90, 91; 27 1-3, 6, 9, 11-16, 19, 20; 28 15, 16; 29 35, 42, 43, 48-53, 56, 59-61, 63, 64, 67, 84; 30 26, 37; 33 4, 8, 9, 12, 30, 43, 44, 65, 74, 77, 79, 80; 34 1, 8, 9, 28, 30, 37, 38, 49, 57-59, 62, 65.  
*Bos taurus*: 27 12; 30 2.  
*Bosmina longirostris*: 12 45; 25 22, 23; 33 53.  
*Bosmina longispina*: 29 54.  
*Bothromestoma* sp.: 25 23.  
*Bothrops jararaca*: 26 12.  
*Bouteloua dactyloides*: 5 21.  
*Bovicola crassipes*: 27 16.  
*Bovicola limbatus*: 25 29; 27 16.  
*Bowdleria punctata*: 30 25.  
Bowfin, *Amia calva*  
*Brachidontes exustus*, see *Ischadium recurvum*  
*Brachionus calyciflorus*: 33 49.  
*Brachionus plicatilis*: 7 46.  
*Brachydanio rerio*: 5 30; 10 58; 14 60; 22 12; 26 11, 71; 34 43.  
*Brachythecium rivulare*: 14 24.  
*Brachythecium salebrosum*: 34 34.  
*Branchiostoma caribaeum*: 15 45; 24 21.  
Brant, *Branta bernicla*  
Brant, Atlantic, *Branta bernicla hrota*  
*Branta bernicla*: 9 1.  
*Branta bernicla hrota*: 14 51.  
*Branta canadensis*: 3 1; 7 17; 9 1; 13 13; 14 2, 51; 27 12; 30 6.  
*Branta canadensis leucoparidea*: 30 5, 40.  
*Branta canadensis maxima*: 26 42, 76.  
*Branta canadensis minima*: 21 19.  
*Branta canadensis moffitti*: 29 32, 41.  
*Brassica juncea*: 18 13, 14.  
*Brassica napus*: 22 8.  
*Brassica oleracea acephalia*: 11 35.  
*Brassica oleracea botrytis*: 4 1; 11 35; 24 6, 10.  
*Brassica oleracea capitata*: 9 5; 11 35; 25 7; 30 14; 34 21, 22, 34, 39.  
*Brassica oleracea gemmifera*: 11 35.  
*Brassica oleracea italica*: 4 1; 20 12.  
*Brassica rapa*: 7 29; 32 20.  
*Brassica* spp.: 19 22; 24 3; 25 7; 32 20.  
*Brevoortia tyrannus*: 15 45; 26 36, 42.  
*Briareum* spp.: 21 9.  
Brittle star, *Ophioderma brevispina*  
Broadleaf, *Griselinia littoralis*  
Broccoli, *Brassica oleracea italica*  
Brome, *Bromus* spp.  
*Bromus inermis*: 7 11; 19 22.  
*Bromus japonicum*: 26 38; 33 37.  
*Bromus* spp.: 14 25.  
Broomweed, *Gutierrezia* spp., *Haplopappus* spp.  
*Brugia pahangi*: 12 12.  
*Bruguiera caryophyllodes*: 15 28.  
Brussels sprout, *Brassica oleracea gemmifera*  
*Bryoria fuscescens*: 29 56.  
Bryozoans, *Bugula*, *Victorella*, *Watersipora*  
*Bubalus* sp.: 5 1; 14 3; 33 30, 78.  
*Bubo bubo*: 10 33, 41; 31 41.  
*Bubo* sp.: 10 41.  
*Bubo virginianus*: 1 32; 7 17; 21 19, 28; 27 1, 6, 12; 30 19, 23.  
*Bubulcus ibis*: 1 32.  
*Buccinum striatissimum*: 12 27, 35.  
*Buccinum undatum*: 33 17; 34 23.  
*Bucephala clangula*: 21 19; 31 52; 34 28.  
Budworm, western spruce, *Choristoneura occidentalis*  
Buffalo (fish)  
Bigmouth, *Ictiobus cyprinellus*  
Smallmouth, *Ictiobus bubalus*  
Buffalo (mammal)  
Indian, *Bubalus* sp.  
Water, *Bubalus* sp.  
*Bufo americanus*: 33 63, 72; 34 35.  
*Bufo arenarum*: 21 30; 26 10; 34 8.  
*Bufo bufo*: 10 30; 21 34; 33 25.  
*Bufo fowleri*: 20 16, 17; 24 9; 33 63; 34 46.  
*Bufo marinus*: 33 25, 42.  
*Bufo regularis*: 34 46.  
*Bufo* sp.: 8 10; 33 38.  
*Bufo terrestris*: 8 8.  
*Bufo valliceps*: 29 81.  
*Bufo woodhousei fowleri*: 22 13.  
*Bufo vulgaris*: 20 17.  
Bug  
Assassin, *Acholla multispinosa*  
Bed, *Cimex lectularius*  
Bigeyed, *Geocoris punctipes*  
Chinch, *Blissus leucopterus listus*  
Lady, *Coccinella septempunctata*  
Lygus, *Lygaeidae*  
Milkweed, *Oncopeltus fasciatus*  
Sow, *Asellus*, *Porcellio*  
*Bugula neritina*: 26 57.  
*Bulinus* spp.: 15 16; 22 9; 28 11; 33 50.  
Bull, *Bos* spp.  
Bullfrog, *Rana catesbeiana*

**Bullhead**Black, *Ameiurus melas* (formerly *Ictalurus melas*)Brown, *Ameiurus nebulosus* (formerly *Ictalurus nebulosus*)**Bunting**Indigo, *Passerina cyanea*Lark, *Calamospiza melanocorys*Lazuli, *Passerina amoena**Bupalus* sp.: 33 16, 39.*Bursaphelenchus xylophilus*: 9 25, 28.*Busycon canaliculatum*: 33 17, 50, 70.*Buteo buteo*: 26 30; 31 41.*Buteo jamaicensis*: 10 54; 27 9, 12.*Buteo lagopus*: 30 19, 23; 31 41.*Buteo lineatus*: 3 1, 17; 21 28.*Buteo regalis*: 30 19, 23.*Buteo* sp.: 10 41.*Butorides striatus*: 1 32; 4 7; 7 17; 14 40.*Butorides virescens*: 5 20.*Butorides virescens virescens*: 24 8.Butterfly, large white, *Pieris brassicae***Buzzard**Common, *Buteo buteo*Honey, *Pernis apivorus*Cabbage, *Brassica oleracea capitata*Cabezón, *Scorpaenichthys marmoratus**Cabomba* spp.: 23 21.*Cacatua galerita*: 30 19, 23.*Cacatua roseicapilla*: 30 16, 19.Caddisfly, *Triadenotus tardus**Caenorhabditis elegans*: 32 22; 33 46, 49, 69.*Cajanus* sp.: 23 15.*Calamospiza melanocorys*: 9 29.*Calamus bajonado*: 33 22.*Calanus marshallae*: 19 25, 28.*Calcarius mccownii*: 30 23.*Calcarius ornatus*: 9 29; 30 23.*Calidris alba*: 33 27.*Calidris alpina*: 21 19.*Calidris canutus*: 14 37.*Calidris* sp.: 26 27.*Callaeas cinerea*: 30 25.*Callibaetes skokianus*: 17 28.*Callibaetes* sp.: 25 12.*Callinectes sapidus*: 1 8; 4 10; 5 33; 6 22; 12 28; 13 19, 21; 18 1; 21 30; 25 14, 21; 26 9, 35; 29 72; 32 18.*Callinectes similis*: 33 53.*Callipepla californica*: 4 12; 12 56, 57; 21 34, 35; 30 16, 19.*Callipepla gambeli*: 30 21.*Callithrix jacchus*: 9 1, 13; 12 73; 15 56; 29 94; 31 55.*Callorhinus ursinus*: 2 10; 10 43.*Calluna vulgaris*: 12 22; 29 56.*Caloenas snicobarica*: 26 27, 76.*Calosoma* sp.: 24 8, 14.*Cambarus bartoni*: 33 8, 53; 34 34.*Cambarus latimanus*: 2 21.*Cambarus longulus longirostris*: 29 79.*Cambarus* sp.: 14 29.Camel, Bactrian, *Camelus bactrianus**Camelus bactrianus*: 33 30, 45, 80.*Campanularia flexuosa*: 15 44; 33 49.*Campeloma decisum*: 33 50.Canary, *Serinus canarius**Canavalia* sp.: 23 15; 34 37.*Cancer anthonyi*: 10 20.*Cancer irroratus*: 2 6; 6 10, 34; 11 27; 32 15.*Cancer magister*: 3 10, 11; 5 33; 6 35; 10 48; 11 38; 12 28, 50; 14 67; 20 9; 21 30.*Canis aureus*: 30 5.*Canis familiaris*: 3 13; 9 8, 14, 16, 26; 10 55; 12 4, 11, 63; 13 16; 14 iii, 44, 55, 87, 90, 99; 15 1, 4, 53, 60, 61, 64, 68; 17 44; 18 36, 37, 42; 20 4, 21, 22, 25, 26; 21 2, 5, 24, 37, 42, 43; 22 2, 16, 17, 22; 23 3, 9, 10, 12, 35, 36, 45; 24 13, 29, 30, 36; 25 2, 27, 29; 26 3, 9, 10, 31, 78, 82, 86; 28 16; 29 35, 42, 67, 84, 85, 94, 95; 30 2, 9, 25, 26, 38-40; 31 16, 33, 47, 60; 32 8, 9, 31, 32; 33 8, 30, 43, 44; 34 2, 7, 8, 11, 30, 49, 50, 57, 59, 65.*Canis familiaris dingo*: 30 2, 5, 6, 24-26, 38.*Canis familiaris familiaris*: 29 5, 9.*Canis latrans*: 2 13; 6 15; 23 4, 12, 35-37; 29 16, 36; 30 1-5, 24, 27, 30, 38, 39, 41; 33 30.*Canis lupus*: 29 62; 30 4, 5.*Canis mesomelas*: 30 5.*Canis* sp.: 1 6, 7, 10; 3 16; 4 8, 18; 5 5, 26; 6 19, 27, 39; 7 iv, 58, 60; 8 1, 25; 9 13, 24; 10 12; 12 73; 30 4, 5, 10-12, 36; 34 62.Canvasback, *Aythya valisineria**Capitella capitata*: 6 22, 36; 10 48; 26 58.*Capra hircus*: 4 12; 13 14; 30 3; 33 31; 34 29, 50.*Capra* sp.: 1 3; 4 8; 8 1, 12; 12 11, 63; 14 90, 99; 21 37; 22 16, 17; 23 4, 10, 33; 25 29; 26 31, 44, 48, 86, 91; 27 16, 20; 29 58, 63, 64, 93, 94; 30 1, 4, 5, 7, 14, 27; 33 74; 34 1, 30, 37, 38, 65.*Capreolus capreolus*: 10 35; 29 59; 33 31.*Capreolus* sp.: 29 38; 29 56.*Carassius auratus*: 1 8, 13; 4 9, 14, 15; 5 32, 35; 6 21, 32; 7 12; 9 10; 10 61; 12 47, 53, 81; 14 64; 15 46; 17 35; 20 17; 21 29, 32, 33; 28 11; 29 28, 64; 33 57, 72; 34 43, 47.*Carassius carassius*: 29 48.*Carassius carassius grandoculis*: 15 44.*Carcharhinus longimanus*: 12 30; 33 22; 34 25.*Carcharhinus* spp.: 10 29.*Carcharodon carcharias*: 21 11.*Carcinus maenas*: 15 45; 19 25; 26 69; 29 72, 73; 33 6, 9, 53, 71; 34 24.

- Carcinus mediterraneus*: 33 41.  
 Cardinal, *Richmondia cardinalis*  
*Carduelis chloris*: 30 25.  
*Caretta caretta*: 1 24; 7 15, 32; 10 30.  
*Carex* spp.: 29 56.  
 Caribou, *Rangifer tarandus*  
 Carnation, *Dianthus* sp.  
 Carp  
     Common, *Cyprinus carpio*  
     Indian, *Saccobranhus fossilis*  
     Round Crucian, *Carassius carassius grandoculis*  
     Various, *Carassius*, *Cyprinus carpio communis*  
*Carpiodes carpio*: 21 12.  
*Carpocapsa pomonella*: 12 6.  
*Carpodacus mexicanus*: 3 12.  
 Carrot, *Daucus* sp.  
*Carthamus tinctorius*: 22 2.  
*Carya illinoensis*: 26 3, 45.  
 Cashew, *Anacardium occidentale*  
 Cassava, *Manihot esculenta*  
*Cassia* spp.: 4 19; 14 25, 56.  
*Cassiope* sp.: 34 32.  
*Castanea* sp.: 29 61.  
*Castilleja* spp.: 5 6, 21.  
*Castor canadensis*: 5 23; 10 36, 43; 15 32; 29 35, 42; 34 29, 35, 36.  
 Cat  
     Bob, *Lynx rufus*  
     Domestic, *Felis domesticus*  
     Eastern native, *Dasyurus viverrinus*  
     Feral, *Felis cattus*  
     Northern native, *Dasyurus hallucatus*  
     Tiger, *Dasyurus maculatus*  
 Caterpillar  
     Eastern tent, *Malacosoma americanum*  
     Gypsy, *Porthetria dispar*  
     Saltmarsh, *Estigmene acrea*, *Estigmene* sp.  
     Various, *Erannis defoliara*, *Operophtera brumata*,  
         *Plutella xylostella*, *Spodoptera*, *Tortrix viridana*  
 Catfish  
     African, *Mystus vittatus*  
     African sharp-tooth, *Clarias gariepinus*  
     Air-breathing, *Clarias batrachus*, *Clarias lazera*  
     Blue, *Ictalurus furcatus*  
     Channel, *Ictalurus punctatus*  
     Flathead, *Pylodictis olivaris*  
     Indian, *Heteropneustes fossilis*  
     Sea, *Arius felis*  
     Various, *Clarias* sp., *Cnidoglanis macrocephalus*,  
         *Ictalurus*, *Mystus vittatus*  
*Catharacta skua*: 5 15.  
*Catharacta* spp.: 10 41.  
*Cathartes aura*: 23 29; 26 27, 43; 30 19, 23; 34 28.  
*Catostomus columbianus*: 29 28.  
*Catostomus commersoni*: 5 32; 6 26; 8 11; 11 33; 12 23;  
     14 63; 17 35; 26 23, 24, 42; 28 11; 31 33; 33 22, 34,  
     57, 72; 34 25.  
*Catostomus macrocheilus*: 29 28.  
 Cattail, *Typha latifolia*  
 Cattle, *Bos* spp.  
 Cauliflower, *Brassica oleracea botrytis*  
*Cavia cobaya*: 2 iii, 19; 3 13; 6 18, 27, 39; 9 14; 14 90.  
*Cavia porcellus*: 13 14; 17 44.  
*Cavia* sp.: 3 16; 8 24, 25, 26; 11 1; 12 63; 14 14; 15 8,  
     52, 55, 57-59, 61, 64, 68; 17 5; 19 31, 33, 34, 41, 46;  
     20 4, 22, 25; 21 37; 22 2, 4, 16, 17, 23, 24; 23 8, 10,  
     35; 24 13; 26 12, 48, 78, 79, 86, 90; 28 15, 16, 23; 29  
     64, 67, 84, 85, 94, 97; 30 11, 27, 37; 32 31, 32; 33 9,  
     44, 80; 34 7, 11, 12, 30, 50, 57-59.  
*Cebus apella*: 29 85.  
 Cedar, eastern red, *Juniperus virginiana*  
 Celery, *Apium graveolans*  
 Centipede, *Lithobius variegatus*  
*Centropristis striata*: 12 30.  
 Cephalopods: 26 20.  
*Cephenomyia trompe*: 27 6, 18.  
*Cerastoderma edule*: 33 40.  
*Ceratitis capitata*: 29 70, 71.  
*Ceratophyllum demersum*: 12 22.  
*Ceratophyllum* sp.: 8 19; 28 8, 10.  
 Ceratopogonidae: 2 28.  
*Ceratopteris richardii*: 22 8.  
*Ceriodaphnia dubia*: 33 53; 34 41, 64.  
*Ceriodaphnia lacustris*: 24 17.  
*Ceriodaphnia reticulata*: 17 24; 26 57, 84.  
*Ceriodaphnia* sp.: 25 22.  
 Cervidae: 4 18; 5 26; 23 12.  
*Cervus canadensis*: 6 15, 17.  
*Cervus elephas*: 26 32, 43; 29 59; 30 6, 7, 14; 33 31.  
*Cervus* sp.: 2 13; 23 33.  
*Ceryle alcyon*: 7 17.  
 Cetaceans: 26 33.  
*Cetengraulis mysticetus*: 20 9.  
*Cetraria nivalis*: 34 32.  
 Chachalaca, gray-headed, *Ortalis cinereiceps*  
*Chaenocephalus aceratus*: 32 15; 33 22; 34 25.  
 Chaetognath, *Sagitta elegans*  
 Chaetognaths: 26 23, 40.  
*Champia parvula*: 12 49, 53.  
*Channa punctatus*: 3 21; 6 31; 9 10; 10 59; 26 60; 33 57.  
*Chaoborus astictopus*: 25 22.  
*Chaoborus punctipennis*: 7 45.  
*Chaoborus* sp.: 1 8; 4 9.  
 Char, Arctic, *Salvelinus alpinus*  
*Chara* sp.: 17 22; 22 3, 10; 28 8, 13.  
*Charadrius vociferus*: 27 9.  
 Chard, Swiss, *Beta vulgaris cicla*  
*Chelon labrosus*: 12 51.

- Chelonia mydas*: 1 24; 7 15, 32.  
*Chelydra serpentina*: 7 10, 15, 27, 31, 32; 29 32; 31 38-40.  
*Chenonetta jubatta*: 30 20.  
*Chenopodium album*: 18 15.  
 Cherry  
     Black, *Prunus serotina*  
     Red, *Prunus avium*  
 Chestnut, *Castanea* sp.  
 Chickadee  
     Black-capped, *Parus atricapillus*  
     Mountain, *Parus gambeli*  
 Chicken  
     Attwater's greater prairie, *Tympanuchus cupido attwateri*  
     Domestic, *Gallus gallus*, *Gallus* sp.  
     Prairie, *Tympanuchus cupido*  
*Chilomonas paramacium*: 6 30.  
*Chinocetes bairdii*: 12 28.  
 Chipmunk  
     Common, *Eutamias townsendii*  
     Eastern, *Tamias striatus*  
     Various, *Tamias* spp.  
*Chiracanthium mildei*: 24 14.  
 Chironomid, *Chironomus*, *Glyptotendipes*,  
     *Goeldichironomus holoprasinus*, *Labrundinia pilosella*, *Psectocladius* sp., *Tanytus grodhausi*  
 Chironomidae: 2 28; 13 19, 20; 17 15.  
*Chironomus decorus*: 25 10, 12, 22.  
*Chironomus ninevah*: 33 56.  
*Chironomus plumosus*: 4 11, 15; 7 11, 29; 25 12.  
*Chironomus riparius*: 17 5, 25; 18 27.  
*Chironomus* sp.: 18 32; 33 56.  
*Chironomus tentans*: 6 30; 18 27; 24 17, 18.  
 Chiselmouth, *Acrocheilus alutaceus*  
 Chitons: 26 20.  
*Chlamydomonas reinhardtii*: 6 30; 14 58; 24 17; 33 48.  
*Chlamydomonas* spp.: 6 33; 21 30; 33 48.  
*Chlamys ferrei nipponensis*: 10 13.  
*Chlamys operculis*: 33 17; 34 23.  
*Chlamys varia*: 32 22.  
*Chlorella pyrenoidosa*: 9 19; 17 22; 18 26; 20 15.  
*Chlorella* sp.: 18 24; 23 21; 31 49; 32 21; 33 48, 69.  
*Chlorella vulgaris*: 2 27, 28; 6 30; 11 26, 54; 15 38; 18 14; 19 24; 29 71.  
*Chloris gayana*: 20 12.  
*Chlorococcum* sp.: 22 10.  
 Chlorophyte, *Hydrodictyon*, *Oedogonium*  
*Choerodon azurio*: 10 14.  
*Chondrus crispus*: 12 23, 26.  
*Chorioptes bovis*: 24 16.  
*Choristoneura occidentalis*: 12 42, 44.  
 Chromide, orange, *Etioplos maculatus*  
*Chroomonas* sp.: 12 21.  
*Chrysanthemum*, *Chrysanthemum*  
*Chrysanthemum cinariaefolium*: 24 2.  
*Chrysanthemum* sp.: 5 5.  
*Chrysemys scripta*: 1 21.  
*Chrysopa carnea*: 10 25; 24 15; 25 8.  
*Chrysopa oculata*: 25 10.  
 Chukar, *Alectoris chukar*, *A. graeca*  
*Chydorus sphaericus*: 33 53.  
 Cicada, 17-year, *Magicicada* spp.  
*Cicer arietinum*: 18 13.  
*Cichlasoma bimaculatum*: 17 20.  
*Cichlasoma cyanoguttatum*: 26 60.  
*Cichlasoma facetum*: 7 45.  
*Cichlasoma* sp.: 21 29.  
 Cichlid  
     Texas, *Cichlasoma cyanoguttatum*  
     Various, *Cichlasoma*  
*Ciconia ciconia*: 31 41.  
*Cimex lectularius*: 27 18.  
*Cinclus cinclus*: 31 41, 45.  
*Ciona intestinalis*: 33 22.  
*Cipangopaludina japonica*: 24 18.  
*Cipangopaludina malleata*: 9 20.  
*Circus approximans*: 30 25.  
*Circus cyaneus*: 30 20, 23.  
*Citellus* spp.: 30 27.  
*Citharichthys stigmaeus*: 6 23, 37; 15 45.  
*Citrus limonia osbeck*: 20 12.  
*Citrus paradisi*: 24 14.  
*Citrus sinensis*: 33 45, 78.  
*Citrus tachibana*: 10 21.  
*Claassenia* sp.: 4 9; 13 7.  
*Cladina* spp.: 29 56.  
 Cladoceran, *Bosmina*, *Ceriodaphnia*, *Chydorus sphaericus*, *Daphnia*, *Moina irrita*, *Simocephalus*  
*Cladonia alpestris*: 29 23.  
*Cladonia uncialis*: 26 51.  
*Cladophora glomerata*: 23 21; 28 9; 29 76.  
*Cladophora* sp.: 14 25; 17 15; 28 8.  
 Clam  
     Asiatic, *Corbicula fluminea*  
     Blood, *Anadara granosa*  
     False quahog, *Pitar morrhuanus*  
     Giant, *Tridacna derasa*, *Tridacna maxima*  
     Hardshell or Quahog, *Mercenaria mercenaria*  
     Pullet-shell, *Venerupis pallustris*  
     Razor, *Ensis minor*  
     Short-necked, *Tapes phillippinarum*  
     Softshell, *Mya arenaria*  
     Southern quahog, *Mercenaria campechiensis*  
     Surf, *Spisula solidissima*  
     Various, *Donax*, *Glebula rotundata*, *Hormomya mutabilis*, *Lamellidens marginalis*, *Macoma*, *Margaretifera margaretifera*, *Paphia undulata*,

- Potamocorbula amurensis*, *Rangia cuneata*,  
*Scrobicularia plana*, *Sphaerium* sp., *Strophites*  
*rugosus*, *Tapes*, *Tellina tenuis*, *Villorita cyprinoides*  
 Clams: 2 11; 6 5, 33; 7 8, 27, 47; 18 32; 19 28; 20 9; 21  
 8; 26 20; 34 32, 36.  
*Clarias batrachus*: 3 21.  
*Clarias gariepinus*: 26 24; 33 22, 35, 57.  
*Clarias lazera*: 26 11, 60.  
*Clarias* sp.: 33 57.  
*Clethrionomys glareolus*: 14 44; 26 32, 37, 38, 86, 91;  
 29 48, 57; 33 31, 42; 34 36.  
*Clethrionomys rufocanus*: 33 42.  
*Clethrionomys rutilus*: 34 36.  
*Clibanarius olivaceus*: 26 57.  
*Clinocardium nuttali*: 3 10.  
*Clistoronia magnifica*: 25 12; 34 41.  
*Cloeon dipterum*: 22 11.  
*Clostridium posterianum*: 34 37.  
 Clover, *Lotus* sp., *Melilotus* sp., *Trifolium* sp.  
*Clupea harengus*: 21 11; 26 24, 60, 71, 85.  
*Clupea harengus harengus*: 21 11; 26 60.  
*Clupea harengus pallasii*: 15 31; 33 57.  
*Cnemidophorus sexlineatus*: 8 8.  
*Cnemidophorus tigris*: 29 81.  
*Cnidoglanis macrocephalus*: 12 56.  
*Coccinella septempunctata*: 33 36.  
*Cochliomyia hominivorax*: 29 70.  
 Cockatoo, sulphur-crested, *Cacatua galerita*  
 Cockles, *Anadara*, *Clinocardium*, *Cerastoderma*  
 Cockroach  
     American, *Periplaneta americana*  
     German, *Blattella germanica*  
     Various, *Blaberus giganteus*  
 Cod  
     Arctic, *Boreogadus saida*  
     Atlantic, *Gadus morhua*  
     Hump rock, *Notothenia gibberifrons*  
     Tom, *Microgadus tomcod*  
*Coelastrium cambricum*: 29 71.  
*Coenobita* sp.: 29 43.  
 Coffee, *Coffea arabica*  
*Coffea arabica*: 34 20, 30.  
 Coleoptera: 1 21; 3 26; 4 19; 6 42; 8 8; 12 42; 13 18, 14  
 9, 57.  
*Colinus virginianus*: 1 7, 9, 16, 18, 21; 3 12, 24; 4 8, 12,  
 17, 18; 7 17, 40, 52; 8 23; 9 iv, 14, 23, 50, 51; 12 56,  
 58; 13 12, 14, 15; 14 77; 18 35; 21 35, 36; 22 7, 14,  
 16; 24 27, 28; 29 33, 84; 30 16, 20; 31 52.  
*Colisa fasciata*: 34 43.  
 Collard, *Brassica* spp.  
 Collembola: 3 17, 26; 18 13.  
 Collembolid, *Onchiurus*  
*Colluricincla harmonica*: 30 20.  
*Colpoda cucullus*: 24 14.  
*Colpoda steini*: 33 46.  
*Colpophyllia* spp.: 21 9.  
*Columba livia*: 2 24; 3 12; 7 54; 10 51, 53, 63; 13 13; 14  
 7, 78, 82; 21 34; 23 30; 30 20; 31 54.  
*Columba* sp.: 15 50; 23 10.  
*Colymbus arcticus* (formerly *Gavia arctica*): 7 22.  
*Comandra* spp.: 5 6, 21.  
 Comber, painted, *Serranus cabrilla*  
*Comptonia peregrina*: 34 20.  
*Compylium polyanum*: 34 20.  
 Condor  
     Andean, *Vultur gryphus*  
     California, *Gymnogyps californianus*  
*Contarina medicaginis*: 24 15.  
*Contopus virens*: 25 24.  
 Coontail, *Ceratophyllum demersum*  
 Coot  
     American, *Fulica americana*  
     Red-knobbed, *Fulica cristata*  
 Copepods, *Acartia*, *Anomalocera* sp., *Calanus*  
*marshallae*, *Cyclops* spp., *Diaptomus*, *Eucyclops*,  
*Eudiaptomus padanus*, *Eurytemora affinis*,  
*Mesocyclops thermocyclopoides*, *Nitroca spinipes*,  
*Pseudodiaptomus coronatus*, *Temora* spp., *Tigriopus*,  
*Tisbe*, *Tropocyclops prasinus mexicanus*  
*Coptotermes formosanus*: 19 23.  
*Coptotermes heimi*: 25 8.  
*Coptotermes* spp.: 33 47.  
*Coragyps atratus*: 23 30; 30 20.  
 Coral, *Alcyonia alcyonium*, *Briareum* spp., *Colpophyllia*  
 spp., *Diploria*, *Gorgonia* spp., *Montastrea annularis*,  
*Porites* spp., *Pseudopterogorgia* spp., *Siderastrea*  
 spp.  
 Corals: 14 3; 19 14; 20 9, 10; 21 8; 32 13; 33 36; 34 23.  
*Corbicula fluminea*: 5 16; 21 9; 26 54; 32 22; 33 50, 70.  
*Corbicula manilensis*: 3 22.  
*Corbicula* sp.: 32 13.  
*Coregonus clupeaformis*: 15 31; 21 11; 33 22; 34 25.  
*Coregonus fera*: 18 33.  
*Coregonus hoyi*: 31 24, 36; 33 22.  
*Coregonus* spp.: 14 32, 50.  
 Corixid, *Sigara*  
 Cormorant  
     Blue-eyed, *Phalacrocorax atriceps*  
     Double-crested, *Phalacrocorax auritus*  
     Various, *Phalacrocorax* spp.  
 Corn, *Zea mays*  
*Corophium volutator*: 12 50; 33 53.  
*Cortinarius* spp.: 10 21.  
 Corvidae: 10 12, 63.  
*Corvus bennetti*: 30 20, 23, 24.  
*Corvus brachyrhynchos*: 13 13; 27 12.  
*Corvus corax*: 26 27, 43; 34 28.  
*Corvus corone*: 29 33.

- Corvus coronoides*: 30 20, 24.  
*Corvus mellori*: 30 20.  
*Corvus monedula*: 10 54.  
*Corvus orru*: 30 24.  
*Corvus* spp.: 23 4.  
*Costia* sp.: 33 3.  
*Cotesia melanoscela*: 25 10.  
Cotton, *Gossypium hirsutum*  
Cottontail  
Desert, *Sylvilagus audubonii*  
Eastern, *Sylvilagus floridanus*  
*Cottus bairdi*: 18 32; 32 26.  
*Coturnix coturnix*: 1 6, 9; 9 14; 10 50, 51-53; 12 56; 14 86; 29 82.  
*Coturnix japonica*: 1 6, 7; 2 24; 3 11, 12, 14, 22; 4 8; 5 26, 27, 29; 7 40, 52, 53; 9 iii, 9; 10 51, 52, 62; 13 13, 15; 14 78; 15 8, 50-52; 17 38, 57; 18 35; 21 35, 36; 22 14, 15; 23 30; 24 26-28; 26 13, 46, 73, 85; 27 9, 10; 30 20; 31 51, 52, 54; 34 47, 48.  
*Coturnix risoria*: 13 15; 34 47, 48.  
Cow, *Bos bovis*  
Cowbird, brown-headed, *Molothrus ater*  
Cowpea, *Vigna* sp.  
Coyote, *Canis latrans*  
Crab  
Alaskan king, *Paralithodes camtschatica*  
Alaskan snow, *Chionocetes bairdii*  
Blue, *Callinectes sapidus*  
Coconut, *Birgus latro*  
Drift-line, *Sesarma cinereum*  
Dungeness, *Cancer magister*  
Fiddler, *Uca pugnator*  
Green, *Carcinus maenas*  
Hermit, *Clibanarius olivaceus*, *Coenobita* sp.,  
*Eupagurus bernhardus*, *Pagurus*  
Horseshoe, *Limulus polyphemus*  
Lesser blue, *Callinectes similis*  
Mud, *Rithropanopeus harrissii*, *Neopanope texana*  
Rock, *Cancer irroratus*  
Soldier, *Mictyris longicarpus*  
Stone, *Menippe mercenaria*  
Various, *Carcinus mediterraneus*, *Dorippe granulata*,  
*Neptunus pelagicus*, *Paragrapsus quadridentatus*,  
*Podophthalmus vigil*, *Portunus pelagicus*, *Sesarma*  
Crabs: 3 8; 5 27; 6 5, 35; 7 28; 12 29, 81; 15 11, 35; 26 1; 31 23; 33 36.  
Crane  
Lesser sandhill, *Grus canadensis canadensis*  
Sandhill, *Grus canadensis*  
*Crangon allmanni*: 34 24.  
*Crangon crangon*: 2 16; 12 29; 14 66, 67; 15 44; 33 53.  
*Crangon septemspinosa*: 21 30; 24 18.  
*Crangonyx pseudogracilis*: 17 28.  
Crappie  
Black, *Pomoxis nigromaculatus*  
White, *Pomoxis annularis*  
*Crassostrea commercialis*: 2 4; 26 20.  
*Crassostrea gigas*: 2 4; 5 33; 6 33; 10 13; 12 50; 15 27, 29, 34, 41; 17 4; 20 15; 26 41, 54, 55, 67, 84; 29 22; 32 2, 29; 33 4, 9, 17, 41, 50, 72, 73; 34 23.  
*Crassostrea madrasensis*: 33 35.  
*Crassostrea* spp.: 12 27; 14 71; 23 21; 31 23.  
*Crassostrea virginica*: 2 27, 28; 4 10, 14-16; 5 11; 6 24, 33; 7 44, 45; 10 47; 11 27, 32, 36, 40, 42, 48; 12 27, 51, 54; 14 65; 15 11, 29, 44; 17 23, 52; 18 1, 30; 19 25; 21 8, 9, 30; 22 11; 24 18; 26 20, 35, 40, 55, 66; 28 10; 29 25; 31 23, 34; 32 13, 18, 22, 23, 29; 33 18, 40, 41, 50, 73; 34 23, 40.  
*Crataegus* spp.: 14 28.  
Crawfish, *Cambarus* spp.  
Crayfish  
Red, *Procambarus clarki*  
Rusty, *Orconectes rusticus*  
Various, *Astacus*, *Austropotamobius pallipes*,  
*Cambarus*, *Orconectes*, *Pacifastacus* sp.,  
*Procambarus*  
Crayfishes: 3 1; 10 43, 64; 11 33; 19 28; 31 32; 34 32, 36, 37.  
*Crepidula fornicata*: 10 48, 58, 59; 32 23; 34 23.  
*Cricetomys gambianus*: 23 37.  
*Cricetus* spp.: 2 31; 3 25; 6 27, 39; 8 24-26; 9 25; 11 1, 55; 12 10, 12, 35, 37-39, 64; 13 12; 15 56; 17 44, 54; 19 41; 21 37; 22 18; 24 30; 25 27; 26 14, 15; 28 24; 29 85, 94, 95; 30 27; 33 8; 34 8, 10-14, 30, 50, 57.  
Cricket, *Acheta*, Gryllidae  
*Cricosphaera* sp.: 26 52.  
*Cricotopus* spp.: 25 12.  
*Cristigera* sp.: 14 67; 26 53.  
Croaker, Atlantic, *Micropogonias undulatus*  
Crocodile, American, *Crocodylus acutus*  
*Crocodylus acutus*: 1 24; 10 30; 12 32; 21 17, 27; 33 25, 38.  
*Crocothemis erythrya*: 13 7.  
*Crotaphytus wislizenii*: 29 80, 81.  
Crow  
American, *Corvus brachyrhynchos*  
Australian, *Corvus orru*  
Carrion, *Corvus corone*  
Little, *Corvus bennetti*  
*Cryptococcus terreus*: 34 40.  
*Cryptotis parva*: 34 29.  
*Ctenocephalides* spp.: 13 6.  
*Ctenochaetus strigosus*: 26 25.  
Ctenophore, *Beroe cucumis*, *Pleurobrachia pileus*  
Ctenophores: 26 35.  
Cucumber, *Cucumis sativus*  
*Cucumis sativus*: 18 12; 24 3; 33 45.

- Cucurbita* spp.: 24 3; 28 7.  
*Culex fatigans*: 5 31.  
*Culex pipiens pipiens*: 24 18; 25 12.  
*Culex pipiens quinquefasciatus*: 11 42; 17 20; 25 8, 12.  
*Culex quinquefasciatus*: 24 18.  
*Culex* spp.: 7 45, 47; 13 17, 24; 24 18.  
*Culex tarsalis*: 25 23.  
Cunner, *Tautoglabrus adspersus*  
*Cunninghamella blakesleeana*: 34 39.  
*Cunninghamella elegans*: 11 34.  
Curlew  
    Eurasian, *Numenius arquata*  
    Long-billed, *Numenius americanus*  
Currawong, pied, *Strepera graculina*  
*Cuterebra* spp.: 27 16, 17, 20.  
Cutworm, Lepidoptera  
Cuttlefish, *Sepia officinalis*  
*Cyanea capillata*: 33 16.  
*Cyanocitta cristata*: 21 19; 29 33, 84.  
*Cyclops* spp.: 25 22, 23, 32; 34 41.  
*Cyclopterus lumpus*: 34 25.  
*Cyclotella cryptica*: 25 11.  
*Cyclotella meneghiniana*: 18 19.  
*Cygnus buccinator*: 14 2, 51; 26 27.  
*Cygnus columbianus*: 14 51.  
*Cygnus olor*: 14 2, 37, 51; 33 42.  
*Cylindrotheca fusiformis*: 20 14.  
*Cymodocea* sp.: 34 22.  
*Cynodon dactylon*: 12 40; 19 12.  
*Cynodon plectostachyus*: 23 15, 33.  
*Cynomys ludovicianus*: 23 4; 30 27, 28, 31, 39.  
*Cynomys* spp.: 30 1, 3, 4, 37, 38.  
*Cynoscion nebulosus*: 4 6; 33 23; 34 26.  
*Cynthia claudicans*: 32 15.  
*Cypericercus* sp.: 25 21.  
*Cypicerus* sp.: 25 14.  
*Cypridopsis* sp.: 25 14, 23.  
*Cyprinion macrostomus*: 34 33.  
*Cyprinodon macularis*: 24 21.  
*Cyprinodon variegatus*: 3 8, 10, 11, 21; 4 10, 11, 16; 5 34; 7 39, 48, 50, 51, 57; 9 11, 19, 21, 22; 11 38; 13 9, 10; 15 6, 42, 43, 48; 17 33, 34; 18 31; 19 26; 21 32; 24 21; 32 26.  
*Cyprinotus* sp.: 25 21.  
*Cyprinus carpio*: 4 9; 5 17, 32, 35-37; 7 14, 33; 8 8, 9, 12; 12 24; 14 33; 15 39; 17 31, 52; 20 9; 21 11-13, 32; 22 7, 9, 12; 24 6, 21; 26 10, 42; 29 29, 73, 76; 32 26; 33 57; 34 43, 47.  
*Cyprinus carpio communis*: 34 43.  
*Cypselurus cyanopterus*: 31 24.  
*Cyrinofus* sp.: 25 22.  
*Cystophora cristata*: 26 32.  
Dab, *Limanda limanda*  
Dace  
    Longfin, *Agosia chrysogaster*  
    Pearl, *Semotilus margarita*  
    Speckled, *Rhinichthys osculus*  
    Various, *Phoxinus*  
*Dacelo novaguineae*: 30 20.  
*Dacryodes excelsa*: 29 68.  
*Dactylus glomerata*: 22 8.  
*Dama* sp.: 29 38.  
*Damalina bovis*: 27 15.  
Damsel flies, Odonata  
*Daphnia galeata mendotae*: 2 21; 24 18, 19; 26 57, 84.  
*Daphnia hyalina*: 22 11; 34 41.  
*Daphnia laevis*: 25 22.  
*Daphnia longispina*: 15 46, 47.  
*Daphnia magna*: 2 17, 21, 27; 4 9, 11, 14, 15; 5 31; 6 20, 23, 26, 30; 7 37, 44, 45, 51; 8 19; 9 10, 19; 10 46, 49; 11 40-42; 12 45; 13 6, 7; 14 12, 13, 58, 59, 71; 15 5, 38, 44, 47; 17 20, 26; 18 27; 20 16; 21 30; 22 11; 23 21; 24 19; 25 14, 15; 26 11, 45, 57, 84; 28 11; 29 78; 30 15; 31 49; 32 24; 33 47, 54, 70; 34 41.  
*Daphnia pulex*: 2 21; 4 9; 5 31; 9 10; 11 40-44; 12 46; 21 31, 33; 22 11; 23 21; 24 19; 26 45, 57; 29 73; 33 54.  
*Daphnia pulicaria*: 18 33; 33 54; 34 42.  
*Daphnia* sp.: 1 4, 8, 12; 3 22; 4 7; 5 36; 6 25; 14 72; 18 32; 26 71; 32 24; 33 47, 54.  
Daphnids: 11 45, 48; 14 57; 25 15; 26 13; 34 46.  
*Dasyuroides byrnei*: 30 28.  
*Dasyurus hallucatus*: 30 28, 38.  
*Dasyurus maculatus*: 30 9, 28, 37.  
*Dasyurus* spp.: 30 28, 41.  
*Dasyurus viverrinus*: 30 11, 28, 37.  
Date, *Phoenix dactylifera*  
*Daucus* sp.: 9 5; 14 56.  
Deer  
    Black-tailed, *Odocoileus hemionus columbianus*  
    Fallow, *Dama* spp.  
    Mule, *Odocoileus hemionus*  
    Red, *Cervus elephus*  
    Roe, *Capreolus capreolus*  
    Various, *Capreolus* sp., Cervidae  
    White-tailed, *Odocoileus virginianus*  
*Delphinapterus leucas*: 31 22, 28, 34.  
*Dendraster excentricus*: 26 59, 85.  
*Dendrocalamus* spp.: 23 15.  
*Dendrocygna bicolor*: 3 11, 12; 4 12; 10 51.  
*Dendrodrilus rubidus*: 26 18, 39.  
*Dendroica* spp.: 25 24.  
*Dendroica townsendi*: 25 25.  
*Dendroides* sp.: 26 38.  
*Dermacentor andersoni*: 27 8.  
*Dermacentor variabilis*: 27 13, 17, 18.  
*Deroceras caruane*: 26 19.

- Deroceras reticulatum*: 26 18, 40.  
*Deschampsia flexuosa*: 29 56; 33 14, 34, 39; 34 20.  
*Diachasmimorpha longicaudata*: 29 71.  
*Dianthus* sp.: 5 5.  
*Diaptomus oregonensis*: 24 19.  
*Diaptomus* sp.: 22 11; 25 22.  
*Diatoma* sp.: 26 66.  
*Dicentrarchus labrax*: 33 72.  
*Dichapetalum cymosum*: 30 2, 13.  
*Dichapetalum* spp.: 30 2, 13.  
*Dichapetalum toxicarium*: 30 2.  
Dickcissel, *Spiza americana*  
*Dicranum scoparium*: 10 21.  
*Didelphis virginiana*: 30 28, 39.  
*Digitaria sanguinalis*: 12 6.  
Dingo, *Canis familiaris dingo*  
*Diomedea immutabilis*: 14 3.  
Diplopoda, Millipedes  
*Diplodus sargus*: 10 26.  
*Diploria* spp.: 21 9.  
*Diploria strigosa*: 7 47.  
*Dipodomys heermanni*: 30 38.  
*Dipodomys heermanni morroensis*: 30 40.  
*Dipodomys* spp.: 30 5, 28, 36.  
Dipper, *Cinclus cinclus*  
Dog  
Black-tailed prairie, *Cynomys ludovicianus*  
Domestic, *Canis familiaris*  
Prairie, *Cynomys* spp.  
Wild, *Canis familiaris familiaris*  
Dogfish  
Lesser spotted, *Scyliorhinus caniculus*  
Smooth, *Mustelus canis*  
Spiny, *Squalus acanthias*  
Dolphin  
Bottle-nosed, *Tursiops truncatus*  
La Plata River, *Pontoporia blainvelli*  
Pacific white-sided, *Lagenorhynchus obliquidens*  
Striped, *Stenella coeruleoalba*  
Various, *Tursiops geophyus*  
White-beaked, *Lagenorhynchus albirostris*  
*Donax* sp.: 33 50, 72.  
*Donax venustus*: 10 24.  
Donkey, *Equus asinus*  
*Dorippe granulata*: 33 20.  
*Dorosoma cepedianum*: 4 6, 7; 18 32; 26 36.  
*Dorosoma petenense*: 4 7; 5 18; 26 36.  
*Dorosoma* spp.: 21 11.  
Dove  
Laughing, *Streptopelia senegalensis*  
Mourning, *Zenaida macroura*  
Ringed turtle-, *Streptopelia risoria*  
Ring-necked, *Streptopelia capicola*  
Rock, *Columba livia*  
Dragon, bearded, *Pogona barbatus*  
*Dreissena polymorpha*: 31 32, 49, 51; 32 23; 33 18, 40, 50.  
Drill, oyster, *Ocenebra erinacea*  
*Dromaius novaehollandiae*: 30 20, 23.  
*Drosophila melanogaster*: 10 68; 28 1, 7, 8; 29 1; 33 4, 46; 34 13.  
*Drosophila* sp.: 29 48.  
Drum  
Freshwater, *Aplodinotus grunniens*  
Red, *Sciaenops ocellatus*  
Duck  
American black, *Anas rubripes*  
American wood, *Aix sponsa*  
Fulvous whistling, *Dendrocygna bicolor*  
Maned, *Chenonetta jubata*  
Mottled, *Anas fulvigula*  
Pacific black, *Anas superciliosa*  
Ring-necked, *Aythya collaris*  
Tufted, *Aythya fuligula*  
Various, *Anas, Tadorna tadorna*  
Duckweed, *Lemna media, Lemna minor*  
*Dugesia* sp.: 10 49, 58; 17 26; 21 31; 25 11.  
*Dunaliella bioculata*: 28 9.  
*Dunaliella marina*: 12 55.  
*Dunaliella salina*: 33 48.  
*Dunaliella tertiolecta*: 14 65; 17 22; 22 10; 26 67; 33 48.  
Dunlin, *Calidris alpina*  
Dunnart  
Fat-tailed, *Sminthopsis crassicaudata*  
Stripe-faced, *Sminthopsis macroura*  
Dunnock, *Prunella modularis*  
*Dysdera crocata*: 26 51.  
Eagle  
Australian little, *Hieraetus morphnoides*  
Bald, *Haliaeetus leucocephalus*  
Booted, *Hieraetus pennatus*  
Golden, *Aquila chrysaetos*  
Imperial, *Aquila heliaca adalberti*  
Wedge-tailed, *Aquila audax*  
White-tailed sea-, *Haliaeetus albicilla*  
Earthworm  
Australian, *Lumbricus* sp.  
Various, *Allolobophora* spp., *Aporrectodea*, *Dendrodrilus rubidus*, *Eisenia*, *Eisenoides carolinensis*, *Lumbricus*, *Octochaetus pattoni*  
Earthworms: 3 1, 8, 17, 18; 5 6, 22, 27, 38; 6 5, 14, 25; 8 12; 12 44; 14 22, 29, 48, 57; 18 13; 21 2, 29; 22 1, 9; 26 18, 50, 83; 30 15, 39, 46; 33 78; 34 34, 36.  
Echinodermata: 6 36; 10 59; 15 37; 26 59, 65; 34 38, 65.  
Echinoid, *Echinometra*  
*Echinometra lucunter*: 34 25.  
*Echinometra mathaei*: 33 56.



- Echinus esculentus*: 2 7.  
*Echium* sp.: 33 10.  
*Ecklonia radiata*: 12 35.  
*Ectomyeloides ceratoniae*: 29 71.  
 Eel  
     American, *Anguilla rostrata*  
     Electric, *Electrophorus electricus*  
     European, *Anguilla anguilla*  
 Eels, *Anguilla*  
 Eggplant, *Solanum melongena*  
*Egretta laevigata*: 14 71.  
 Egret  
     Cattle, *Bubulcus ibis*  
     Little, *Egretta garzetta*  
*Egretta garzetta*: 26 27.  
*Eichornia crassipes*: 10 21; 23 21, 26.  
*Eichornia* sp.: 28 8.  
 Eider, common, *Somateria mollissima*  
*Eisenia andrei*: 33 43, 46.  
*Eisenia fetida*: 3 18; 6 14; 10 57, 68; 26 51; 30 5; 33 36, 46, 69; 34 39.  
*Eisenia rosea*: 14 29.  
*Eisenoides carolinensis*: 14 29.  
*Elaphe obsoleta*: 29 31.  
*Elasmopus pecteniscus*: 11 38.  
 Elderberry, *Sambucus* spp.  
*Electrophorus electricus*: 22 9.  
*Eledone cirrhosa*: 32 13; 33 19.  
 Elephant, Indian, *Elephas maximus*  
*Elephas maximus*: 26 32.  
 Elk, *Cervus canadensis*, *Cervus elaphus*, *Cervus* sp.  
 Elm, *Ulmus americana*  
*Elminius modestus*: 26 11, 68; 32 15.  
*Elodea canadensis*: 3 22; 14 70; 18 20; 22 10; 28 2, 9; 32 21; 33 3.  
*Elodea* sp.: 3 21; 8 19; 20 8; 28 4, 8.  
*Elsholtzia* spp.: 33 39.  
*Emblema temporalis*: 30 21, 23.  
 Emu, *Dromaius novaehollandiae*  
 Engraulidae: 14 34.  
*Engraulis encrasicolus*: 33 23.  
*Engraulis mordax*: 26 42.  
*Engraulis* sp.: 29 73.  
*Enhydra lutris*: 2 10.  
*Ensis minor*: 17 24.  
*Enteromorpha intestinalis*: 28 10; 33 34.  
*Enteromorpha linza*: 14 25.  
*Enteromorpha* sp.: 15 28; 17 22; 33 3, 73.  
*Entosiphon sulcatum*: 14 59.  
*Eopsetta grigorjewi*: 12 30.  
*Epeorus latifolium*: 26 58, 69, 84.  
*Ephemerella grandis*: 32 25.  
*Ephemerella* sp.: 2 17, 28; 24 19.  
*Ephemerella walkeri*: 28 11.  
*Ephydatia fluviatilis*: 26 45, 53, 84, 90.  
*Epicoccum nigrum*: 18 13.  
*Epilobium angustifolium*: 29 56.  
*Epithemia* sp.: 18 25.  
*Epirimerus pyri*: 24 14.  
*Eptesicus fuscus*: 7 23, 34; 14 44; 26 32.  
*Equisetum* sp.: 29 50.  
*Equus asinus*: 26 12; 29 94.  
*Equus asinus* X *E. caballus*: 26 12; 30 28.  
*Equus caballus*: 1 33; 5 1, 26, 28, 29, 44; 8 1, 26; 12 65; 14 iii, 3, 44, 48, 53, 55, 87, 90, 91, 99, 104; 18 36; 19 17, 19, 21, 31, 34, 41, 42; 23 4, 33; 26 3, 9, 12, 32, 43, 44, 77, 79, 86, 90; 30 14, 28, 36; 33 31, 43, 65, 74; 34 29, 30.  
*Erannis defoliaria*: 31 39.  
*Eremophila alpestris*: 4 12; 9 29; 13 17, 22, 23; 24 8; 26 76; 30 23.  
*Erethizon dorsatum*: 2 13; 30 28; 33 31.  
*Erignathus barbatus*: 29 34.  
*Erithacus rubecula*: 7 53; 27 9.  
*Erolia* spp.: 3 1, 27.  
*Erpobdella octoculata*: 26 23, 58, 59, 70.  
*Escherichia coli*: 8 17; 17 41; 22 6, 8; 26 53; 28 8; 29 78; 32 21, 31; 34 12.  
*Eschrichtius robustus*: 33 27.  
*Esox lucius*: 5 32; 6 26; 8 20, 28; 10 26, 40, 61; 11 42, 46; 12 24; 14 64; 21 11, 26; 29 29, 50, 61; 31 38; 33 23, 57; 34 25, 47.  
*Esox masquinongy*: 34 25.  
*Esox niger*: 8 16; 34 25.  
*Esox* sp.: 34 25, 47.  
*Estigmene acrea*: 3 22, 23; 25 21.  
*Etiopis maculatus*: 43 44.  
*Eucalyptus cladocalyx*: 23 33.  
*Eucalyptus viminalis*: 23 33.  
*Eucyclops agillis*: 2 21.  
*Eucyclops* sp.: 22 11.  
*Eudiaptomus padanus*: 26 57; 34 42.  
 Euglena, *Euglena gracilis*  
*Euglena gracilis*: 19 24; 25 19; 26 18, 45, 66; 29 71; 33 48, 69.  
*Eulimnadia* spp.: 25 15.  
*Eumetopias jubata*: 26 32, 44.  
*Eupagurus bernhardus*: 19 25; 26 22.  
*Euphagus cyanocephalus*: 30 21, 23.  
*Euphausia pacifica*: 19 25, 28.  
*Euphausia superba*: 21 9; 26 22; 33 21.  
 Euphausiid, *Euphausia*, *Meganyctiphanes*  
*Eurotium* sp.: 22 8.  
*Eurycea bislineata*: 33 63.  
*Eurytemora affinis*: 11 38, 39; 12 51; 15 41; 25 15.  
*Eutamias townsendii*: 14 44.  
*Euthynnus pelamis*: 34 25.  
*Exuviella baltica*: 21 30.

- Fabrea salina*: 32 22.  
*Falco bevigora*: 30 24.  
*Falco cenchroides*: 30 24.  
*Falco columbarius*: 1 32; 31 42.  
*Falco mexicanus*: 14 78, 79.  
*Falco naumanni*: 33 26.  
*Falco peregrinus*: 1 32; 7 52; 10 33; 14 38; 21 19; 26 30; 31 39, 42.  
*Falco rusticolus*: 10 33, 41; 31 42.  
*Falco* sp.: 10 41.  
*Falco sparverius*: 1 9, 16; 7 50; 14 13, 79, 80, 103; 22 7, 14-16; 23 30; 24 27; 31 51, 52.  
*Falco tinnunculus*: 7 17; 10 54; 31 42.  
 Falcon  
     Brown, *Falco bevigora*  
     Peregrine, *Falco peregrinus*  
     Prairie, *Falco mexicanus*  
     Swedish gyr, *Falco rusticolus*  
*Fasciola hepatica*: 22 11.  
*Felis cattus*: 30 5, 6, 28, 37.  
*Felis domesticus*: 3 13; 4 8; 6 27; 8 1; 10 12, 15, 36, 54, 55, 64, 65, 68, 74; 12 65; 14 91, 99; 15 61; 17 2, 46; 19 35, 41, 46; 20 25; 21 2, 24; 22 4, 16, 18, 23, 24; 23 35, 45; 24 31, 36; 26 3, 9, 77, 79, 87; 28 16; 30 2, 12, 38, 40, 41; 31 16, 33; 34 12, 30, 49, 50, 59.  
*Felis lynx*: 29 63.  
 Fern  
     Ostrich, *Matteuccia struthiopteris*  
     Sweet, *Comptonia peregrina*  
 Ferns: 33 14.  
 Fernbird, *Bowdleria punctata*  
 Ferret  
     Black-footed, *Mustela nigripes*  
     Domestic, *Mustelus putorius*  
     European, *Mustela putorius furo*  
 Fescue, *Festuca arundinacea*  
*Festuca arundinacea*: 6 13; 22 8.  
*Festuca rubra*: 14 25; 22 8.  
*Festuca* sp.: 34 20.  
 Finch  
     Green, *Carduelis chloris*  
     House, *Carpodacus mexicanus*  
     Zebra, *Peophila guttata*  
 Fir  
     Douglas, *Pseudotsuga menziesii*  
     True, *Abies* spp.  
 Firetail, red-browed, *Emblema temporalis*  
 Fish  
     Atlantic guitar, *Rhinobatis lentiginosus*  
     Benthic, *Trematomus bernacchii*  
     Cypriniform, *Labeo rohita*  
     Goat, *Upeneus* spp.  
     Harlequin, *Rasbora heteromorpha*  
     Jelly, *Cyanea*  
     Lump, *Cyclopterus lumpus*  
     Margined flying, *Cypselurus cyanopterus*  
     Monk, *Squatina squatina*  
     Parrot, *Scarus* spp.  
     Rabbit, *Siganus* spp.  
     Scorpion, *Scorpaena* spp.  
     Star, *Asterias rubens*  
     Surgeon, *Ctenochaetus strigosus*  
     Tile, *Lopholatilus chamaeleonticeps*  
     Trigger, *Balistoides* spp.  
     Various, *Cyprinion macrostomus*, *Lates* sp., *Stolothrissa* sp.  
 Flagfish, *Jordanella floridae*  
 Flatworm, *Dugesia* sp.  
 Flamingo  
     Greater, *Phoenicopterus ruber*  
     Various, *Phoenicopterus ruber roseus*  
*Flavobacterium* sp.: 5 4; 17 11.  
 Flax, *Linum* spp.  
 Fleas, *Ctenocephalides* spp., Siphonaptera  
*Florida coerulea*: 24 8.  
 Flounder  
     Baltic or European, *Platichthys flesus*  
     Roundnose, *Eopsetta grigorjewi*  
     Southern, *Paralichthys lethostigma*  
     Summer, *Paralichthys dentatus*  
     Various, *Limanda* sp., *Paralichthys* sp., *Pleuronectes*, *Scophthalmus*  
     Windowpane, *Scophthalmus aquosus*  
     Winter, *Pleuronectes* (formerly *Pseudopleuronectes*) *americanus*  
     Witch, *Glyptocephalus cynoglossus*  
     Yellowtail, *Pleuronectes ferruginea* (formerly *Limanda limanda*)  
 Fluke, liver, *Fasciola hepatica*  
 Fly  
     Black, *Simulium vittatum*  
     Bot, *Hypoderma* spp.  
     Caddis, *Clistoronia magnifica*, *Hydropsyche bettani*, *Philarctus quaeris*  
     Caribbean fruit, *Anastrepha suspensa*  
     Crane, *Platycentropus radiatus*, *Tipula*  
     Damsel, *Ischnura*  
     Dragon, *Crocothemis erythryuaea*, *Macromia* sp., *Orthemis* sp., *Pantala*, *Pseudagrion* spp.  
     Face, *Musca autumnalis*  
     Fruit, *Anastrepha*, *Drosophila*  
     Horn, *Haematobia irritans*, Muscidae  
     House, *Musca domestica*, *Musca* sp.  
     Leafmining, *Liriomyza trifolii*  
     May, *Baetis*, *Callibaetis*, *Cloeon dipterum*, *Epeorus latifolium*, *Ephemerella*, *Hexagenia*, *Isonychia bicolor*, *Leptophlebia* sp., *Siphonurus lacustris*, *Stenonema* sp.

- Mediterranean fruit, *Ceratitis capitata*  
 Reindeer nostril, *Cephenomyia trompe*  
 Reindeer warble, *Oedemagena tarandi*  
 Rhagionid, *Atherix* sp.  
 Rodent bot, *Cuterebra* spp.  
 Screw-worm, *Cochliomyia hominivorax*  
 Sheep blow, *Lucilia cuprina*  
 Snipe, *Atherix* sp.  
 Stable, *Stomoxys calcitrans*  
 Stone, *Claassenia* sp., *Isoperla* sp., *Leuctra* sp.,  
*Paragnetina media*, *Pteronarcella badia*,  
*Pteronarcys*, *Skwala* sp.  
 Warble, *Hypoderma* spp.  
 White, *Bemisia tabaci*
- Flycatcher  
 Ash-throated, *Myiarchus cinerascens*  
 Great crested, *Myiarchus crinitus*
- Flyingfish, margined, *Cypselurus cyanopterus*  
*Folsomia candida*: 22 9.  
*Fontinalis antipyretica*: 23 21.  
*Fontinalis squamosa*: 26 18.  
 Formicidae: 1 20; 5 6, 38.
- Fox  
 Arctic, *Alopex logopus*  
 Desert kit, *Vulpes macrotis arsipus*  
 Gray, *Urocyon cinereoargenteus*  
 Kit, *Vulpes macrotis*  
 Red, *Vulpes vulpes*  
 San Joaquin kit, *Vulpes macrotis mutica*  
 Various, *Vulpes* sp.
- Foxtail  
 Giant, *Setaria faberii*  
 Various, *Setaria* sp.
- Fragaria vesca*: 3 4.  
*Fratercula* spp.: 2 15; 21 19, 20.
- Frog  
 Bull, *Rana catesbeiana*  
 Cricket, *Acris* sp.  
 European, *Rana temporaria*  
 Gray tree, *Hyla versicolor*  
 Green, *Rana clamitans*  
 Green tree, *Hyla cinerea*  
 Leap, *Rana dalmutina*  
 Leopard, *Rana pipiens*, *Rana sphenoccephala*  
 Northern cricket, *Acris crepitans*  
 Northern leopard, *Rana pipiens pipiens*  
 South African clawed, *Xenopus laevis*  
 Southern gray tree, *Hyla chrysoscelis*  
 Southern leopard, *Rana utricularia*  
 Spotted grass, *Limnodynastes tasmaniensis*  
 Tree, *Hyla* sp.  
 Various, *Adelotus brevis*, *Limnodynastes peroni*,  
*Litoria*, *Pseudis paradoxa*, *Rana*  
 Western chorus, *Pseudacris triseriata*
- Frogs: 3 1, 22; 13 22; 22 7; 26 15; 29 67; 30 17.  
 Fruitworm, Lepidoptera  
*Fucus disticus*: 14 26; 26 36.  
*Fucus serratus*: 26 84.  
*Fucus* spp.: 11 32; 12 26; 26 52.  
*Fucus vesiculosus*: 2 4; 6 9; 12 26, 53; 14 26; 29 22, 24;  
 34 22.  
*Fulica americana*: 5 20, 38; 21 34; 29 32, 41; 34 28.  
*Fulica cristata*: 33 36, 42.  
 Fulmars: 26 30.  
*Fundulus diaphanus*: 34 44.  
*Fundulus heteroclitus*: 2 28, 30, 31; 5 27; 6 23; 10 61;  
 13 19; 14 68; 15 45; 24 21; 25 17; 26 60, 66, 71, 72;  
 27 8; 29 29; 31 37; 32 26; 33 23, 57; 34 44.  
*Fundulus kansae*: 5 36.  
*Fundulus similis*: 4 16; 11 40; 13 8; 17 34; 22 12.  
 Fungi: 5 20; 12 9; 14 24, 57; 15 10, 15; 18 13; 20 1-3,  
 10; 26 38; 28 11; 29 51; 30 8; 33 14; 34 38, 39.  
 Fungus, *Achyla* sp., *Aspergillus*, *Cortinarius* spp.,  
*Cunninghamella*, *Epicoccum nigrum*, *Eurotium* sp.,  
*Fusarium* spp., *Helminthosporium* sp., *Ophiobolus*  
 sp., *Penicillium* spp., *Phomopsis leptostromiformes*,  
*Rhizoctonia solani*, *Rhizopus* sp., *Saprolegnia* sp.,  
*Sclerotium rolfsii*, *Thielaviopsis basicola*, *Tricho-*  
*derma viride*  
*Fusarium* spp.: 18 13; 22 8; 23 19; 30 8, 9.  
*Gadopsis marmoratus*: 10 27.  
*Gadus morhua*: 2 8; 7 8, 12, 47; 12 31; 15 31; 21 14; 29  
 55, 78; 31 16, 24, 34, 38; 32 15, 19; 33 23; 34 25.  
 Gadwall, *Anas strepera*  
 Galah, *Cacatua roseicapilla*  
*Galeorhinus galeus*: 34 35.  
*Galleria melonella*: 3 17.  
 Gallinule, purple, *Porphyryla martinica*  
*Gallus* spp.: 1 5, 9, 15, 19; 2 iii, 24, 31; 3 11, 23, 24; 4  
 17; 5 1, 29, 38; 6 18, 19, 27, 37; 7 36, 50, 53, 60; 8 1,  
 23, 28; 9 iv, 1, 6, 9, 14, 19, 23; 10 1, 51, 53, 61, 62,  
 74; 12 4, 6, 56, 58, 59, 61, 76, 77; 13 10, 12, 15; 14  
 13, 14, 80, 81, 86; 15 8, 32, 50, 51; 17 2, 13, 16, 38-  
 40, 57; 18 33, 34; 19 1, 16, 29, 30; 20 5, 18, 19, 28;  
 21 20, 34-36; 22 7, 14-16; 23 2, 29-32, 47; 24 10, 28;  
 25 6, 24-27, 32; 26 9-11, 27, 28, 43, 45, 72-76, 85,  
 90; 27 6, 10, 11; 28 13-15; 29 65, 67, 82-84; 30 21;  
 31 1, 10, 42, 48, 51-54; 32 9, 30, 31; 33 8, 44, 48, 73,  
 78, 89; 34 1, 10, 14, 28, 30, 37, 38, 48, 61, 65.  
*Gambusia affinis*: 1 12; 2 28; 3 9; 5 18, 32, 36, 37; 8 21;  
 11 38, 42, 46; 13 9, 18; 14 34; 17 20; 20 8, 17; 21 29;  
 22 12; 24 8, 21; 25 17, 18, 21; 26 60, 71, 72; 28 11;  
 32 26.  
*Gambusia holbrooki*: 29 22, 29.  
*Gammarus duebeni*: 10 49; 26 57, 58, 69.  
*Gammarus fasciatus*: 9 10; 18 27; 21 31; 22 11.  
*Gammarus lacustris*: 13 6, 7; 29 54.  
*Gammarus oceanicus*: 15 43.

- Gammarus pseudolimnaeus*: 7 37, 45; 10 46, 61; 11 37; 12 46, 53; 14 59; 17 27, 28; 18 32; 23 21; 24 19; 25 15; 31 49; 32 25; 33 47, 54.
- Gammarus pulex*: 23 20, 21; 26 10; 33 54.
- Gammarus* spp.: 1 4, 8; 4 9, 11; 6 20; 7 51; 18 32; 19 25; 29 78; 34 42.
- Gannet, northern, *Morus bassanus*, *Sula bassanus*
- Gar
- Longnose, *Lepistosteus osseus*
- Spotted, *Lepistosteus oculatus*
- Garra rufa*: 34 33.
- Gasterosteus aculeatus*: 2 17; 4 10; 14 64; 21 32; 26 12, 72; 32 26.
- Gastrolobium grandiflorum*: 30 14.
- Gastrolobium* spp.: 30 2, 13, 16.
- Gastrophryne carolinensis*: 10 47; 12 44, 47, 81; 26 64, 72, 84; 33 63; 34 40, 46, 64.
- Gastropods: 3 24; 4 7; 5 27, 36; 6 12; 12 53, 81; 14 31.
- Gavia arctica*: 7 22.
- Gavia immer*: 5 19; 10 63; 14 38; 34 28.
- Gazelle, Antilopinae
- Geissosia prainosa*: 34 21.
- Gelochelidon nilotica*: 31 42.
- Geocoris punctipes*: 25 10.
- Geomys breviceps*: 30 29.
- Geomys bursarius*: 23 35.
- Geomys floridanus*: 30 29.
- Geomys personatus*: 30 25.
- Geomys* spp.: 30 1, 3.
- Geranium, *Geranium* spp.
- Geranium* spp.: 28 8.
- Gerbil, *Gerbillus* sp., *Meriones*
- Gerbillus* sp.: 15 56; 29 94.
- Geukensia demissa*: 22 9, 11; 31 37.
- Gifblaar, *Dichapetalum cymosium*
- Gillia altilis*: 17 27.
- Ginger, *Zingiber officinale*
- Girella punctata*: 10 14.
- Glebula rotundata*: 3 22, 23.
- Glenodinium halli*: 26 52, 85.
- Globicephala macrorhynchus*: 2 10; 5 15.
- Globicephala melaena*: 21 24; 26 33; 33 28.
- Glossiphonia complanata*: 18 28.
- Glycera dibranchiata*: 23 8.
- Glycine max*: 2 12; 4 19; 12 39, 40, 43; 14 48, 56; 18 1, 12, 15; 20 12; 22 2, 8; 23 8; 24 3, 10, 36; 25 7; 30 14; 32 20; 33 45; 34 9, 37, 39.
- Glyptocephalus cynoglossus*: 12 66.
- Glyptotendipes barbipes*: 7 47.
- Glyptotendipes paripes*: 25 12.
- Gnat, *Chaoborus* spp.
- Gnatcatcher, blue-gray, *Poliptila caerulea*
- Goat, domestic, *Capra hircus*, *Capra* sp.
- Goatfish, *Mullus*, *Upeneus*
- Goby
- Edible, *Boleophthalmus dussumieri*
- Lizard, *Rhinogobius flumineus*
- Various, *Acanthogobius flavimanus*
- Godwit, bar-tailed, *Limosa lapponica lapponica*
- Goeldichironomus holoprasinus*: 25 13.
- Goldeneye, common, *Bucephala clangula*
- Goldenrod, *Solidago graminifolia*
- Goldfish, *Carassius auratus*
- Gonatopsis borealis*: 21 9.
- Goose
- Aleutian Canada, *Branta canadensis leucoparidea*
- Cackling Canada, *Branta canadensis minima*
- Canada, *Branta canadensis*, *Branta canadensis moffitti*
- Giant Canada, *Branta canadensis maxima*
- Greylag, *Anser anser*
- Various, *Anser* spp.
- Goosefish, *Lophius piscatorius*
- Gopher
- Breviceps pocket, *Geomys breviceps*
- Texas pocket, *Geomys personatus*
- Tuza pocket, *Geomys floridanus*
- Various, *Geomys*, *Thomomys* sp.
- Gopherus polyphemus*: 29 32.
- Gorilla, *Gorilla gorilla gorilla*
- Gorilla gorilla gorilla*: 26 33.
- Gorgonia* spp.: 21 9.
- Goshawk
- Brown, *Accipiter fasciatus*
- Various, *Accipiter gentilis*
- Gossypium hirsutum*: 3 19, 23; 4 iii, 1, 3, 4, 19; 12 6, 14, 39; 20 11, 13; 22 2, 24; 24 2, 3, 6, 8, 36; 25 7; 28 7.
- Gourami, giant, *Colisa fasciata*
- Grackle
- Common, *Quiscalus quiscula*
- Great-tailed, *Quiscalus mexicanus*
- Grallina cyanoleuca*: 30 21, 24.
- Gram, *Cicer arietinum*
- Grape, *Vitis* sp.
- Grapefruit, *Citrus paradisi*
- Grass
- Arrow, *Triglochin* spp.
- Bahia, *Paspalum notatum*
- Barley, *Hordeum glaucum*
- Bent, *Agrostis tenuis*
- Blue, *Poa annua*
- Brome, *Bromus inermis*, *Bromus* spp.
- Buffalo, *Bouteloua dactyloides*
- Colonial bent-, *Agrostis tenuis*
- Common Bermuda, *Cynodon dactylon*
- Crested wheat, *Agropyron cristatum*
- Crab, *Digitaria sanguinalis*
- Eel, *Zostera* spp.

- Hair, *Deschampia flexuosa*  
 Johnson, *Sorghum halepense*  
 Kentucky blue, *Poa pratensis*  
 Marsh, *Spartina* sp.  
 Orchard, *Dactylus glomerata*  
 Perenniel rye, *Lolium perenne*  
 Red fescue, *Festuca rubra*  
 Redhead, *Potamogeton perfoliatus*  
 Reed canary, *Phalaris arundinacea*  
 Rhodes, *Chloris gayana*  
 Saltmarsh, *Spartina alterniflora*  
 Sea, *Heterozostera tasmanica*  
 Shoal, *Halodule wrightii*  
 Star, *Cynodon plectostachyus*  
 Sudan, *Sorghum sudanense*  
 Turtle, *Thalassia testudinum*  
 Western wheat, *Agropyron smithii*  
 Widgeon, *Ruppia maritima*  
 Grasshopper  
     Various, *Oxya velox*  
     Western, *Melanoplus* spp.  
 Grasshoppers: 4 7, 19; 9 iv, 29; 22 16; 24 9; 33 10, 79, 80.  
 Grayling, Arctic, *Thymallus arcticus*  
 Grebe  
     Eared, *Podiceps nigricollis*  
     Great crested, *Podiceps cristata*  
     Pied-billed, *Podilymbus podiceps*  
     Western, *Aechmophorus occidentalis*  
 Grebes, Podicipediformes  
 Greenfinch, *Carduelis chloris*  
*Grindelia* spp.: 5 6.  
*Grindelia squarrosa*: 5 21.  
*Griselinia littoralis*: 30 6, 9.  
 Groundnut, *Arachis hypogea*  
 Grouse  
     Black, *Tetrao tetrix*  
     Ruffed, *Bonasa umbellus*  
     Sharp-tailed, *Tympanuchus phasianellus*  
 Grunion, California, *Leuresthes tenuis*  
*Grus canadensis*: 13 13; 14 2; 27 12.  
*Grus canadensis canadensis*: 4 12.  
 Gryllidae: 1 21; 6 42.  
 Guava, *Psidium guajava*  
 Gudgeon, topmouth, *Pseudorasbora parva*  
 Gull  
     Audouin's, *Larus audouinii*  
     California, *Larus californicus*  
     Common black-headed, *Larus ridibundus*, *L. r. ridibundus*  
     Franklin's, *Larus pipixcan*  
     Glaucous, *Larus hyperboreus*  
     Glaucous-winged, *Larus glaucescens*  
     Great black-backed, *Larus marinus*  
     Grey, *Larus modestus*  
     Herring, *Larus argentatus*  
     Kelp, *Larus dominicanus*  
     Laughing, *Larus atricilla*  
     Lesser black-backed, *Larus fuscus*  
     Ring-billed, *Larus delawarensis*  
     Various, *Larus*  
     Yellow-legged herring, *Larus cachinnans*  
*Gulo gulo*: 29 63.  
 Gum  
     Manna, *Eucalyptus viminalis*  
     Sugar, *Eucalyptus cladocalyx*  
 Gumweed, *Grindelia* spp., *Grindelia squarrosa*  
 Guppy, *Poecilia reticulata*  
*Gutierrezia* spp.: 5 6, 21.  
*Gymnodinium splendens*: 26 52, 53.  
*Gymnogyps californianus*: 14 3; 23 4, 31; 26 28, 43; 30 4, 40; 34 28.  
*Gymnorhina tibicen*: 30 7, 21, 24.  
 Haddock, *Melanogrammus aeglefinus*  
*Haemaphysalis longicornis*: 27 6.  
*Haematobia irritans*: 13 16; 24 36; 25 6; 27 6.  
*Haematopinus eurytetrus*: 27 6, 15.  
*Haematopinus* spp.: 27 6.  
*Haematopus ostralegus*: 5 14; 29 34, 41, 58; 33 27.  
 Hagfish, Atlantic, *Myxine glutinosa*  
 Hake  
     Argentinian, *Merluccius merluccius hubbsi*  
     Blue, *Antimora rostrata*  
     Pacific, *Merluccius productus*  
     Red, *Urophycus chuss*  
 Halfbeak, *Hemiramphus marginatus*  
*Haliaeetus albicilla*: 10 63; 26 28; 31 40, 42, 45.  
*Haliaeetus leucocephalus*: 1 31; 7 17, 32, 52; 10 33, 41, 74; 14 2, 38, 51, 74, 81, 103; 21 20, 21, 27; 23 4; 26 28; 27 12; 30 4; 33 26.  
*Haliaeetus* sp.: 10 41.  
*Haliastur sphenurus*: 30 24.  
 Halibut, Atlantic, *Hippoglossus hippoglossus*  
*Halichoeres grypus*: 10 43; 21 24; 26 33; 29 34, 42; 31 28, 34; 33 28; 34 32.  
*Halichondria* sp.: 34 23.  
*Haliotis cracherodii*: 33 50.  
*Haliotis rufescens*: 2 5; 6 9; 14 71; 26 55; 32 13; 33 50; 34 23.  
*Haliotis tuberculata*: 34 23.  
*Halobates* spp.: 34 24.  
*Halocynthia roretzi*: 34 25.  
*Halodule wrightii*: 18 22.  
 Hamster  
     Chinese or Syrian, *Cricetus* spp.  
     Golden, *Cricetus* spp.  
     Syrian golden, *Mesocricetus auratus*  
*Haplopappus* spp.: 5 21.

Hardy head, small-mouthed, *Atherinasoma microstoma*

# Hare

Blue, *Lepus timidus*

Brown, *Lepus capensis*

European, *Lepus europaeus*

Snowshoe, *Lepus americanus*

Harrier, northern, *Circus cyaneus*

*Haslea ostrearia*: 33 72.

# Hawk

Australian harrier, *Circus approximans*

Cooper's, *Accipiter cooperii*

Ferruginous, *Buteo regalis*

Pigeon, *Falco columbarius*

Red-shouldered, *Buteo lineatus*

Red-tailed, *Buteo jamaicensis*

Rough-legged, *Buteo lagopus*

Sharp-shinned, *Accipiter striatus*

Various, *Falco*

Hawthorn, *Crataegus* spp.

Heather, Scotch, *Calluna vulgaris*

*Hediste diversicolor*: 33 56.

*Helianthus* spp.: 4 iv, 21; 20 11, 12; 22 24.

*Heliotropium* sp.: 33 10.

*Helisoma campanulata*: 12 46.

*Helisoma* sp.: 8 19; 28 13.

*Helisoma trivolvis*: 13 7; 24 19.

*Helix aspersa*: 3 23; 26 52.

*Helix pomatia*: 29 78.

*Helix* spp.: 14 57.

*Helminthosporium* sp.: 22 8.

*Helobdella stagnalis*: 18 28.

*Hemicentrotus* sp.: 6 37.

*Hemichromus bimaculatus*: 15 46.

*Hemifusus* spp.: 12 27, 81.

*Hemiramphus marginatus*: 26 25.

Hen, guinea, *Gallus* sp.

*Hermione hystrix*: 6 35, 36.

# Heron

Black-crowned night-, *Nycticorax nycticorax*

Gray, *Ardea cinerea*

Great blue, *Ardea herodias*

Green-backed, *Butorides virescens virescens*

Green-backer (also known as Green, or Striated),

*Butorides striatus*

Little blue, *Florida coerulea*

Little green, *Butorides virescens*

Yellow-crowned night-, *Nycticorax violaceus*

# Herring

Atlantic, *Clupea harengus harengus*

Baltic, *Clupea harengus*

Pacific, *Clupea harengus pallasi*

*Heteropneustes fossilis*: 21 32; 33 57, 72.

*Heterotermes indicola*: 25 8, 9.

*Heterotermes* spp.: 33 47.

*Heterozostera tasmanica*: 33 69.

*Hexagenia bilineata*: 11 38; 31 23.

*Hexagenia limbata*: 31 23.

*Hexagenia* sp.: 5 16; 9 19; 11 41; 31 23, 34.

*Hieraeus morphnoides*: 30 24.

*Hieraeus pennatus*: 26 30; 31 42.

*Himantopus mexicanus*: 5 20.

*Hinnites multirugosus*: 10 20.

*Hippodamia convergens*: 25 10.

*Hippoglossoides elassodon*: 31 36.

*Hippoglossus hippoglossus*: 15 31.

*Hirundo neoxena*: 30 25.

*Hirundo nigricans*: 30 25.

*Hirundo rustica*: 14 38, 39, 52; 29 32, 33, 41.

Hog, *Sus* spp.

Hogchoker, *Trinectes maculatus*

*Holmesimysis costata*: 33 54.

Holothurian, sea cucumber, *Holothuria mexicana*,

*Stichopus*

*Holothuria mexicana*: 34 32.

*Homalium* spp.: 34 21, 34.

*Homalothecium sericum*: 29 51.

*Homarus americanus*: 2 7, 29; 10 24; 11 27, 31, 32; 12

29, 35; 14 67; 15 29, 44; 21 9; 24 19; 26 22, 58, 68;

32 15, 25; 33 54; 34 24.

*Homarus gammarus*: 26 69.

*Homarus vulgaris*: 33 21.

*Homo sapiens*: 1 iii, 1, 18, 27, 30, 33; 2 1, 16, 26, 27,

31-34; 3 iii, 3, 15, 16, 25, 27; 4 iii, iv, 4, 13, 14, 18,

20, 21; 5 iv, 1, 2, 5-7, 26, 27, 40-44; 6 iii, 1, 14, 18,

27, 38, 41, 46; 7 iii, 1, 5, 33, 54, 55, 57-59, 61; 8 iii,

1-3, 16, 24, 28; 9 iii, 1, 18; 10 iii, 1, 2, 4, 10-12, 17,

40, 44, 54, 56, 62-65, 67-69, 72, 74; 11 iv, 1, 2, 9, 10,

12, 25, 40, 50, 51, 58-60, 62, 63; 12 iii, iv, 1-5, 12,

14, 20, 35, 37, 38, 61, 65, 72-74, 77, 81; 13 1, 24; 14

iii, 1, 2, 5, 7, 11-14, 86, 104-108; 15 1-4, 12, 34, 56,

63, 65, 66, 68, 69; 17 iv, 1, 2, 16, 40, 41, 44-46, 54,

55, 57; 18 iv, 7, 42; 19 1, 4, 17, 31, 32, 41-44, 47-49;

20 1, 2, 4, 5, 9, 10, 21-23, 26-28; 21 2, 4-6, 24, 25,

28, 36, 37, 43, 44; 22 2, 4, 5, 16, 18, 22-24; 23 1, 3, 9,

11, 15, 16, 33-35, 37-39, 46, 48, 49; 24 36-39; 25 2,

32; 26 3-5, 8, 11-15, 33, 43-47, 77, 79, 80, 82, 87, 90,

91; 27 3, 12, 19, 21; 28 1-4, 15-17, 23-27; 29 2, 4, 10-

12, 15, 36, 41-43, 47, 48, 51, 53, 60, 61, 65, 67, 85-

87, 93-105; 30 2-4, 12, 13, 24, 29, 36, 40; 31 16, 33,

47, 48, 58, 59, 61; 32 2-5, 8, 9, 12, 16, 17, 31, 32, 34,

35, 37; 33 4, 7, 10, 11, 31, 32, 43, 44, 65, 73, 77, 79-

81; 34 1-5, 7, 8, 10-14, 29, 30, 34, 36-39, 50, 51, 56-

66.

Honeybee, *Apis mellifera*, *Apis* spp.

Hoopoe, *Upupa epops*

Hop, *Humulus* spp.

*Hoplias* sp.: 29 39.

*Hoplosternum littorale*: 17 20.

- Hordeum glaucum*: 22 8.  
*Hordeum vulgare*: 12 39; 18 14; 19 12; 20 11, 12; 22 2, 8; 24 36; 26 50, 51; 29 49.  
*Hormomya mutabilis*: 10 13.  
 Hornworm, tobacco, *Manduca sexta*  
 Horse, *Equus caballus*  
 Horsetails, *Equisetum* sp.  
 Human, *Homo sapiens*  
*Humulus* spp.: 22 24.  
 Hyacinth, water, *Eichornia crassipes*  
*Hyalella azteca*: 5 31; 11 45; 21 29, 31; 25 15, 22; 32 25; 33 47, 54; 34 42.  
*Hyalella* sp.: 29 78.  
*Hybanthus* spp.: 34 21, 34.  
 Hydra, *Hydra oligactis*, *Hydra* sp.  
*Hydra oligactis*: 7 37; 25 11.  
*Hydra* sp.: 1 8; 17 24.  
*Hydrilla verticillata*: 33 73.  
*Hydrodictyon reticulatum*: 6 30.  
*Hydrodictyon* spp.: 28 8.  
 Hydroid, *Campanularia flexuosa*  
*Hydromys chrysogaster*: 30 29.  
*Hydrophilus triangularis*: 25 12.  
*Hydropsyche bettani*: 25 21.  
*Hydrurga leptonyx*: 32 17; 33 28.  
*Hyla chrysoscelis*: 33 63.  
*Hyla cinerea*: 24 9.  
*Hyla crucifer*: 34 35.  
*Hyla* sp.: 10 47.  
*Hyla versicolor*: 33 25; 34 26, 35.  
*Hylocichla mustelina*: 25 24.  
*Hymenomonas carterae*: 12 54.  
*Hypnum cupressiforme*: 11 25, 26; 14 24; 19 12; 33 14; 34 20.  
*Hypoderma bovis*: 27 14.  
*Hypoderma lineatum*: 27 14, 20.  
*Hypoderma* spp.: 27 2, 6, 9, 15.  
*Hypogymnia physodes*: 10 21.  
*Hystrix indica*: 30 5.  
 Ibis, white-faced, *Plegadis chihi*  
 Icefish, blackfin, *Chaenocephalus aceratus*  
*Ichthyophthirius* sp.: 33 3.  
*Ictalurus furcatus*: 4 6, 7; 21 12; 26 36; 31 25.  
*Ictalurus melas*, see *Ameiurus melas*  
*Ictalurus punctatus*: 1 7, 8; 2 20; 3 9; 4 4, 6, 9, 11, 14, 15, 16; 5 18, 32, 35; 6 26; 7 38; 8 9, 11, 12, 22; 10 28, 46; 12 25, 47; 13 9; 14 63; 15 45; 17 20, 34; 18 32; 20 17; 21 12, 13, 32; 22 12, 13; 24 22, 26; 25 18; 26 11, 72, 84; 31 25, 51; 33 58; 34 40, 44.  
*Ictalurus* spp.: 8 16; 29 29.  
*Ictiobus bubalus*: 21 12.  
*Ictiobus cyprinellus*: 21 12.  
*Illex illecebrosus argentinus*: 31 23.  
*Ilyanassa obsoleta*: 33 19.  
 Impala, *Aepyceros melampus*  
*Indoplanorbis exustus*: 9 20.  
*Ipomoea batatas*: 9 1; 23 3, 12; 29 23.  
*Ipomoea* sp.: 24 3; 28 8, 10.  
*Ischadium recurvum*: 26 35; 32 18.  
*Ischnura* sp.: 2 28.  
*Ischnura verticalis*: 7 37.  
*Isochrysis galbana*: 22 10; 24 17; 26 53.  
*Isonychia bicolor*: 32 25, 30.  
*Isodon auratus barrowensis*: 30 29.  
*Isodon macrourus*: 30 29.  
*Isodon obesulus*: 30 29.  
*Isoperla* sp.: 10 23.  
 Isopod, *Asellus* sp.  
*Isurus oxyrinchus*: 12 31; 26 25.  
*Jacana jacana*: 17 40.  
 Jacana, wattled, *Jacana jacana*  
 Jackal  
     Asiatic, *Canis aureus*  
     Black-backed, *Canis mesomelas*  
 Jackdaw, *Corvus monedula*  
 Jackrabbit, black-tailed, *Lepus californicus*  
 Jararaca, *Bothrops jararaca*  
 Jassid, *Amrasca* sp.  
 Jay, blue, *Cyanocitta cristata*  
 Jellyfish, *Aurelia* spp.  
 Jewelfish, *Hemichromis bimaculatus*  
 Jird, tristrum, *Meriones tristrami*  
*Jordanella floridae*: 5 32; 9 10, 22; 12 47, 55; 26 60, 84; 32 26.  
*Juga plicifera*: 25 13; 34 41.  
*Juniperus virginiana*: 22 8.  
*Jussiaea* sp.: 28 8.  
 Kakapo, *Strigops habroptilus*  
 Kale, *Brassica oleracea acephala*  
 Kangaroo  
     Eastern gray, *Macropus giganteus*  
     Red, *Macropus rufus*  
     Western gray, *Macropus fuliginosus*  
*Kelletia kelletia*: 10 20.  
 Kelp  
     Brown, *Ecklonia radiata*  
     Giant, *Macrocystis pyrifera*  
 Kestrel  
     American, *Falco sparverius*  
     Australian, *Falco cenchroides*  
     Lesser, *Falco naumanni*  
     Various, *Falco tinnunculus*  
 Killdeer, *Charadrius vociferus*  
 Killifish  
     Banded, *Fundulus diaphanus*  
     Diamond, *Adinia xenica*  
     Freshwater, *Fundulus kansae*  
     Longnose, *Fundulus similis*

Kingfisher, belted, *Ceryle alcyon*  
 Kinglet, golden-crowned, *Regulus satrapa*  
*Kinosternon sabrubrum*: 29 32.

#### Kite

Black, *Milvus migrans*  
 Snail, *Rostrhamus sociabilis*  
 Whistling, *Haliastur sphenurus*  
 Kittiwake, black-legged, *Rissa tridactyla*  
 Kiwi, *Apteryx* spp.  
*Klebsiella pneumoniae*: 12 73; 28 23.  
 Knifejaw, striped, *Oplegnathus fasciatus*  
 Knot, red, *Calidris canutus*  
 Knotted wrack, *Ascophyllum nodosum*  
 Kokako, *Callaeas cinerea*  
*Kogia breviceps*: 33 28.  
*Konosirus punctatis*: 21 15.  
 Kookaburra, laughing, *Dacelo novaeguineae*  
 Kowari, *Dasyuroides byrnei*  
 Krill, *Euphausia superba*  
 Krobia, *Cichlasoma bimaculatum*  
 Kwi kwi, *Hoplosternum littorale*  
*Labeo rohita*: 26 60.  
*Labrundinia pilosella*: 18 32.  
*Laccophilis* spp.: 25 12.  
 Lacewing

Common green, *Chrysopa carnea*  
 Various, *Chrysopa oculata*  
*Lactarius* spp.: 29 55.  
*Lactuca sativa*: 11 25, 26, 35; 14 26, 57; 19 45; 22 2; 23 19; 30 14; 32 20; 34 21, 22, 39.  
*Lactuca* spp.: 2 12; 4 1; 19 22; 24 3, 6.  
*Lagarosiphon major*: 12 69.  
*Lagenorhynchus albirostris*: 21 25; 26 33.  
*Lagenorhynchus obliquidens*: 31 28.  
*Lagodon rhomboides*: 1 7, 12; 4 10; 5 34; 7 39, 46; 17 32; 21 32; 29 73.  
*Lagopus lagopus*: 10 41; 14 81, 82; 29 58; 33 8, 9, 26; 34 28.  
*Lagopus mutus*: 10 41; 14 100.  
*Lagostrophus fasciatus*: 30 30.  
*Lama pacos*: 33 43.  
*Lamellidens marginalis*: 21 31; 33 51; 34 41.  
*Laminaria digitata*: 12 26; 26 53.  
*Laminaria hyperborea*: 12 27; 26 53.  
 Lamprey, Petromyzontidae, *Petromyzon marinus*  
*Lanistes carinatus*: 13 7.  
*Lanius ludovicianus*: 31 42.  
 Lanternfishes, Myctophidae  
*Laomedea loveni*: 2 23.

#### Lark

Australian magpie-, *Grallina cyanoleuca*  
 Eastern meadow, *Sturnella magna*  
 Horned, *Eremophila alpestris*

Southern meadow, *Sturnella magna argutula*  
 Western meadow, *Sturnella neglecta*  
*Larus argentatus*: 1 26-29, 32; 4 6; 5 15; 7 19; 8 1, 8, 13, 16, 23; 10 34; 21 21; 29 42; 31 15, 39, 42, 43, 53, 60; 34 28, 32.  
*Larus atricilla*: 2 9; 4 6.  
*Larus audouinii*: 31 43, 45.  
*Larus cachinnans*: 31 43, 45.  
*Larus californicus*: 10 34.  
*Larus delawarensis*: 4 6; 7 33, 36.  
*Larus dominicanus*: 33 27.  
*Larus fuscus*: 6 14; 32 16; 33 26; 34 28.  
*Larus glaucescens*: 21 21.  
*Larus hyperboreus*: 26 28.  
*Larus marinus*: 1 32; 21 21; 29 33.  
*Larus modestus*: 33 27.  
*Larus pipixcan*: 4 6; 33 27.  
*Larus ridibundus*: 29 33, 41; 31 53.  
*Larus ridibundus ridibundus*: 29: 58, 82.  
*Larus* spp.: 33 26.  
*Lasallia papulosa*: 26 19, 51.  
*Lasiiorhinus latifrons*: 30 29, 38.  
*Laspeyresia pomonella*: 24 14.  
*Lateolabrax japonicus*: 21 15.  
*Lates* sp.: 33 23.  
 Laurel, cherry, *Prunus laurocerasus*  
*Lecanora conizaeoides*: 14 48.  
*Ledum* sp.: 10 21; 34 30, 36.  
 Leech, *Erpobdella*, *Glossiphonia*, *Helobdella*  
 Leeches: 3 1; 5 6, 37; 9 19.  
 Leek, *Allium porrum*  
*Leiopotherapon unicolor*: 26 61, 71.  
*Leiostomus xanthurus*: 4 15; 7 39, 46; 18 31; 26 36, 61, 65; 33 58; 34 44.  
 Lemming, *Lemmus* sp.  
*Lemmus* sp.: 33 42; 34 36.  
*Lemna media*: 15 46.  
*Lemna minor*: 6 30; 17 23, 52; 18 25; 20 15, 16; 22 10; 32 21; 33 3; 34 22.  
*Lemna* sp.: 33 69.  
 Lemon, *Citrus limonia osbeck*  
*Lens esculenta*: 18 13; 26 8.  
 Lentil, *Lens esculenta*  
 Lepidoptera: 3 26; 4 1, 19; 14 30; 30 15.  
*Lepisosteus oculatus*: 4 7; 26 36.  
*Lepisosteus osseus*: 23 22, 27.  
*Lepomis auritis*: 29 78.  
*Lepomis cyanellus*: 3 9; 4 9; 5 18, 30, 35; 12 25, 55; 13 20; 22 12; 23 27; 33 58, 72.  
*Lepomis gibbosus*: 6 12; 7 12; 10 28; 44 44.  
*Lepomis gulosus*: 26 24.  
*Lepomis humilis*: 26 24; 33 36.  
*Lepomis macrochirus*: 1 8, 12, 13; 2 31; 3 9; 4 7, 9; 5 17, 32, 37; 6 21, 26, 31, 41; 7 37; 9 8, 10; 11 37, 40-



- 43, 45; 12 25, 47, 53, 55, 75; 13 8, 18, 20; 14 33, 63; 15 45; 17 20, 32; 18 28, 29, 32; 19 26; 20 9, 17, 27; 21 15, 29, 32, 33; 22 12, 13; 23 22, 26; 24 22; 25 18, 20, 22; 26 61, 71; 27 8; 28 12, 13; 29 67, 73, 79; 30 15; 32 26, 30; 33 58, 72; 34 32, 44.
- Lepomis megalotis*: 14 33.
- Lepomis microlophus*: 4 9; 26 25; 34 32.
- Lepomis punctatus*: 8 8.
- Leptinotarsa decemlineata*: 12 5.
- Leptonychotes weddelli*: 7 34; 21 25; 32 17; 33 8, 9, 28.
- Leptophlebia* sp.: 25 21.
- Lepus americanus*: 29 42; 34 30.
- Lepus californicus*: 29 16, 36, 42; 30 29.
- Lepus capensis*: 29 59.
- Lepus europaeus*: 7 24; 14 82; 22 23.
- Lepus* sp.: 1 6; 3 15; 4 8; 5 28; 6 27, 38, 39; 7 42, 54, 55; 8 1, 12, 13, 24-26; 9 13, 16; 10 64; 11 1, 12; 12 72, 73; 14 91; 15 58, 59, 61; 22 16, 18; 29 38; 30 2, 5.
- Lepus timidus*: 29 59.
- Lerista pectorittata*: 21 33.
- Lethrinus* spp.: 26 25.
- Lettuce  
Common, *Lactuca sativa*, *Lactuca* spp.  
Sea, *Ulva lactuca*
- Leuciscus hakonensis*: 25 23.
- Leuciscus idus melanotus*: 15 40, 46.
- Leucospilus delineatus*: 2 27.
- Leuctra* sp.: 32 25.
- Leuresthes tenuis*: 13 6, 8, 11; 24 22.
- Lichens, *Bryoria fuscescens*, *Cetraria nivalis*,  
*Cladina* spp., *Cladonia*, *Compylium polyanum*,  
*Hypogymnia physodes*, *Lasallia papulosa*,  
*Lecanora conizaeoides*, *Parimelia baltimorensis*,  
*Ramalina fraxinea*, *Umbilicaria* sp.
- Lily  
Water, *Nuphar luteum*  
Yellow pond, *Nuphar* sp.
- Limanda* sp.: 12 35.
- Limnodrilus hoffmeisteri*: 3 10; 15 27; 29 78.
- Limnodrilus* sp.: 11 45; 33 41.
- Limnodynastes peroni*: 22 13.
- Limnodynastes tasmaniensis*: 30 17.
- Limosa lapponica lapponica*: 29 34.
- Limpet  
Common, *Patella vulgata*  
Slipper, *Crepidula fornicata*  
Various, *Acmaea digitalis*, *Littorina littorea*, *Patella caerulea*
- Limpkin, *Aramus guarauna*
- Limulus polyphemus*: 25 13; 26 45.
- Linognathus vituli*: 27 6, 15.
- Linseed, *Linum* sp.
- Linum* sp.: 23 3, 12, 14, 19.
- Liometopum occidentale*: 30 24.
- Lipaphis erysimi*: 24 14.
- Liriodendron tulipifera*: 25 24.
- Liriomyza trifolii*: 29 71.
- Lissorhopterus oryzophilus*: 25 23.
- Lithobius variegatus*: 14 57.
- Litoria caerulea*: 21 33.
- Litoria peronii*: 21 33.
- Littorina littorea*: 2 5; 6 10; 12 28; 26 55, 67; 32 7, 13.
- Lizard  
Blotched blue-tongued, *Tiliqua nigrolutea*  
Leopard, *Crotaphytus wislizenii*  
Shingle-back, *Tiliqua rugosa*  
Side-blotched, *Uta stansburiana*  
Spiny tailed, *Uromastix hardwickii*  
Western whiptail, *Cnemidophorus tigris*
- Loach  
Stone, *Noemacheilus barbatulus*  
Various, *Misgurnis fossilis*, *Noemacheilus barbatulus*
- Lobodon carcinophagus*: 32 17; 33 28.
- Lobster  
American, *Homarus americanus*  
Caribbean spiny, *Panulirus argus*  
Spiny, *Nephrops norvegicus*, *Panulirus*  
Various, *Homarus*  
Western rock, *Panulirus cygnus*
- Lobsters: 6 35; 11 32; 12 29, 81.
- Locoweed, *Astragalus* spp.
- Loligo vulgaris*: 12 28.
- Lolium perenne*: 7 11; 18 41; 19 13; 22 8; 29 51, 60, 61.
- Longspur  
Chestnut-collared, *Calcarius ornatus*  
McCown's, *Calcarius mccownii*
- Loon  
Arctic, *Gavia arctica*  
Common, *Gavia immer*
- Lophius piscatorius*: 6 37.
- Lophodytes cucullatus*: 7 19; 34 28.
- Lopholatilus chamaeleonticeps*: 31 25, 26, 38; 34 35.
- Lotus* sp.: 19 11.
- Louse  
Angora goat biting, *Bovicola limbatus*  
Cattle, *Haematopinus* spp.  
Cattle-biting, *Damalina bovis*  
Hairy goat, *Bovicola crassipes*  
Long-nosed cattle, *Linognathus vituli*  
Short-nosed cattle, *Haematopinus eurysternus*  
Wood, *Oniscus asellus*, *Porcellio*
- Lovebird, peach-faced, *Agapornis roseicollis*
- Lucilia cuprina*: 25 30.
- Lugworm, *Arenicola cristata*
- Luidia clathrata*: 32 15.
- Lumbriculus variegatus*: 33 56, 71; 34 42.
- Lumbricus herculeus*: 3 18.
- Lumbricus rubellus*: 8 17; 26 18, 38, 39; 29 55; 33 35.

- Lumbricus* sp.: 3 18.  
*Lumbricus rubellus*: 33 16, 37, 47, 69.  
*Lumbricus terrestris*: 3 18; 14 30; 22 7; 33 47.  
 Lungfish: 23 27.  
*Lupinus* spp.: 33 74.  
*Lutianus fulvivflamma*: 26 25.  
*Lutianus griseus*: 11 43.  
*Lutjanus griseus*: 11 43.  
*Lutra canadensis*: 5 23; 7 10, 24, 33, 34; 10 36, 43, 54, 55, 64; 21 25; 34 30.  
*Lutra lutra*: 26 43; 31 46, 47.  
*Lycastis ouanaryensis*: 33 21.  
*Lycium andersonii*: 20 8.  
*Lycopersicon esculentum*: 4 1; 10 25; 11 35; 20 8; 21 5; 22 2; 24 3, 6, 10; 28 7, 8; 32 20; 33 14.  
*Lycosa* sp.: 25 23.  
 Lygaeidae: 4 1.  
*Lymantria dispar*: 20 14; 25 1, 2, 9, 21, 25; 33 45, 47, 78.  
*Lymnaea calliaudi*: 22 9.  
*Lymnaea palustris*: 14 59.  
*Lymnaea peregra*: 14 72.  
*Lymnaea stagnalis*: 15 39; 17 26.  
*Lymnaea* sp.: 15 45; 17 25, 26; 22 10; 26 55; 28 13.  
 Lynx, *Felis lynx*  
*Lynx rufus*: 10 36; 23 12; 29 36; 30 29, 38, 41.  
*Lysmata caudata*: 5 37.  
*Lysmata seticaudata*: 5 13; 12 54, 55.  
*Lytechinus pictus*: 26 45; 34 42.  
*Lytechinus variegatus*: 34 32.  
*Macaca fascicularis*: 14 94; 15 56.  
*Macaca fuscata*: 22 18.  
*Macaca iris*: 14 94.  
*Macaca mulatta*: 1 17; 3 8, 15; 7 iv, 54, 55, 58, 60; 8 25, 26; 10 54, 55, 65; 14 95; 17 40, 41, 46; 26 33, 48, 87; 29 87, 96; 30 12, 29, 39; 31 1, 48, 55, 61.  
*Macaca* sp.: 3 16; 10 66; 12 66; 20 23; 21 37; 23 39, 46; 34 62.  
*Macadamia nut*, *Macadamia* sp.  
*Macadamia* sp.: 18 3, 41.  
 Macaw, blue and gold, *Ara araruana*  
*Machaeranthera* spp.: 5 6.  
 Mackerel  
     Atlantic, *Scomber scomber*  
     King, *Scomberomorus cavalla*  
     Spanish, *Scomberomorus maculatus*  
*Macoma balthica*: 12 51; 14 86; 26 20, 65; 29 21; 32 13, 29; 33 10, 19, 40, 51.  
*Macoma liliana*: 33 51.  
*Macoma nasuta*: 3 10; 31 51; 32 13.  
*Macrobrachium hendersonianum*: 26 68.  
*Macrobrachium lamarrei*: 6 20, 30.  
*Macrobrachium rosenbergerii*: 1 4; 33 55.  
*Macrobrachium rude*: 33 55.  
*Macrobrachium* sp.: 34 33.  
*Macrocystis pyrifera*: 6 33; 34 40.  
*Macromia* sp.: 7 37.  
*Macronectes giganteus*: 32 16; 33 26; 34 27.  
 Macrophytes, aquatic, *Cabomba* spp., *Chara* sp., *Elodea*, *Lemna*, *Myriophyllum*, *Polygonum* sp., *Potamogeton*, *Ruppia*, *Spirodella oligorrhiza*, *Typha latifolia*, *Zannichellia* sp., *Zostera*  
*Macropus agilis*: 30 29.  
*Macropus eugenii*: 30 29.  
*Macropus fuliginosus*: 30 30.  
*Macropus giganteus*: 30 30.  
*Macropus irma*: 30 30.  
*Macropus rufogriseus*: 30 5-7, 30, 37.  
*Macropus rufus*: 30 30.  
*Macrosiphium gei*: 10 25.  
*Macrotus lagotis*: 30 30.  
 Madrone, *Arbutus menziesii*  
*Magicalcada* spp.: 33 16, 39.  
 Magpie  
     Australian, *Gymnorhina tibicen*  
     Black-billed, *Pica pica*  
     Yellow-billed, *Pica nuttalli*  
 Mahoe, *Melicytus ramiflorus*  
*Makaira indica*: 2 8; 5 14; 10 28.  
*Makaira nigricans*: 5 14; 10 28; 33 23.  
*Malacosoma americanum*: 14 30, 48.  
 Mallard, *Anas platyrhynchos*  
*Malus domestica*: 23 3, 4.  
*Malus malus*: 5 5; 12 6; 15 65, 69; 20 8.  
*Malus* spp.: 23 15; 24 3, 6, 38; 25 7; 26 5.  
*Malus sylvestris*: 12 22; 23 4, 10.  
*Mamestra brassicae*: 25 9.  
 Manatee, *Trichechus manatus*  
*Manduca sexta*: 9 25.  
*Mangifera indica*: 29 68.  
 Mango, *Mangifera indica*  
 Mangrove, *Bruguiera*, *Rhizophora*  
*Manihot esculenta*: 23 2-4, 9, 13-15, 19, 31, 34, 35, 37, 45.  
 Maple  
     Bigleaf, *Acer macrophyllum*  
     Red, *Acer rubrum*  
*Margaretifera margaretifera*: 19 26.  
 Marlin  
     Black, *Makaira indica*  
     Blue, *Makaira nigricans*  
 Marmoset, *Callithrix jacchus*  
 Marmot, *Marmota flaviventris*  
*Marmota flaviventris*: 19 20.  
*Marmota monax*: 5 23; 15 32; 33 32.  
*Marphysa sanguinea*: 32 15.  
 Marsupials: 30 1-41.  
 Marten, *Martes martes*

- Martes martes*: 10 64; 30 30.  
 Martin  
     Purple, *Progne subis subis*  
     Tree, *Hirundo nigricans*  
*Mastotermes darwinensis*: 1 20, 33.  
*Matteuccia struthiopteris*: 7 44.  
 Meadowlark, *Sturnella* spp.  
 Mealworm, lesser, *Alphitobius diaperinus*  
 Medaka, *Oryzias latipes*  
*Medicago lupulina*: 19 12.  
*Medicago sativa*: 3 iii, 1, 23, 27, 28; 4 1, 18; 9 1; 10 21; 12 22, 39; 18 12; 19 12; 20 11, 12; 21 4, 5; 22 3, 8, 23, 24; 24 8, 16; 28 7; 29 51; 30 14; 33 43; 34 39, 61.  
*Megacephala virginica*: 23 20.  
*Meganyctiphanes norvegica*: 5 12, 37; 26 22; 33 21.  
*Megachile rotundata*: 24 15, 16, 37.  
*Melanitta perspicillata*: 32 16; 33 27, 42.  
*Melanoides* sp.: 34 33.  
*Melanperes formicivorus*: 30 24.  
*Melanogrammus aeglefinus*: 5 34; 10 48; 29 78.  
*Melanoplus* spp.: 12 56.  
*Meleagris gallopavo*: 4 7; 9 iii, 8, 14; 12 4, 56, 59, 76, 77; 13 10, 12, 15; 14 2; 15 8; 19 1, 29, 30; 22 16; 23 4; 26 9, 10, 28, 43, 46, 73; 28 3; 30 21; 31 53, 54; 32 9, 30; 33 27, 44, 48, 73, 80; 34 28.  
*Melicytus ramiflorus*: 30 14.  
*Melilotus* sp.: 19 6.  
*Melomys burtoni*: 30 30.  
*Melospiza melodia*: 25 24.  
 Menhaden, Atlantic, *Brevoortia tyrannus*  
*Menidia beryllina*: 13 8, 11; 24 22.  
*Menidia menidia*: 5 34; 6 22; 13 8, 11; 24 22; 32 26; 33 58; 34 44.  
*Menidia peninsula*: 13 8, 11; 24 22; 26 61; 33 58; 34 44.  
*Menippe mercenaria*: 12 29; 25 15.  
*Menyanthes trifoliata*: 29 56, 57.  
*Mephitis mephitis*: 30 30, 39.  
*Mercenaria campechiensis*: 26 67.  
*Mercenaria mercenaria*: 4 10; 6 10, 33; 10 47; 11 40; 12 28; 26 55, 65; 32 23, 29; 33 51; 34 23, 41.  
 Merganser  
     Common, *Mergus merganser*  
     Hooded, *Lophodytes cucullatus*  
     Red-breasted, *Mergus serrator*  
*Mergus merganser*: 7 19.  
*Mergus serrator*: 5 20; 7 19; 21 21; 23 32; 26 29; 29 34; 31 39, 43.  
*Mergus* spp.: 7 22.  
*Meriones hurrianae*: 21 37.  
*Meriones tristrami*: 30 30.  
*Meriones unguiculatus*: 12 12.  
*Merlangius merlangius*: 29 78.  
 Merlin, *Falco columbarius*  
*Merluccius merluccius hubbsi*: 31 26.  
*Merluccius productus*: 26 26.  
*Mesocricetus auratus*: 28 17, 23.  
*Mesocyclops thermocyclopoides*: 25 15.  
*Mesotoma* sp.: 25 23.  
*Metamysidopsis elongata*: 15 44.  
*Metapenaeus ensis*: 33 55.  
*Methanobacterium* sp.: 34 37.  
*Metridium senile*: 26 19.  
 Mice  
     Deer, *Peromyscus maniculatus*  
     Field, *Microtus arvalis*  
     White-footed, *Peromyscus leucopus*  
*Microcystis aeruginosa*: 14 58; 23 21; 33 3.  
*Microgadus tomcod*: 11 47.  
*Micropogonias undulatus*: 6 37; 26 36; 34 26.  
*Micropterus dolomieu*: 8 11; 12 25; 14 33, 64; 22 12; 34 26.  
*Micropterus ochrooaster*, see *Microtus ochrogaster*  
*Micropterus salmoides*: 4 7, 9, 15; 5 17, 37; 6 41; 7 12; 10 28, 46; 11 45; 12 25; 13 20; 17 20, 31, 52; 20 27; 21 33; 23 22; 26 25; 28 12; 29 29, 78; 31 33; 32 26, 30; 34 26, 32, 40, 44.  
*Micropterus* sp.: 28 13.  
*Microspora* sp.: 26 66.  
*Microstomus pacificus*: 34 26.  
*Microtermes obesi*: 21 28.  
*Microtermes* spp.: 33 47.  
*Microtus agrestis*: 5 6, 23; 22 23; 26 36, 37.  
*Microtus arvalis*: 8 12, 16; 22 23.  
*Microtus guentheri*: 30 31.  
*Microtus haydeni*: 30 31.  
*Microtus miurus*: 29 88.  
*Microtus oregoni*: 29 88.  
*Microtus ochrogaster*: 1 5, 7, 11, 18, 30, 33; 14 44.  
*Microtus pennsylvanicus*: 2 13; 14 47; 24 9; 29 88; 30 31; 33 37; 34 30.  
*Microtus pinetorum*: 14 91; 29 88, 89, 96.  
*Microtus* spp.: 30 41; 33 42.  
*Mictyrus longicarpus*: 33 71.  
 Midge  
     Flower, *Contarina medicaginis*  
     Phantom, *Chaoborus puntipennis*  
     Various, *Chaoborus*, *Chironomus*, *Cricotopus* spp., *Procladius* sp., *Tanytarsus*  
 Midshipman, plainfin, *Porichthys notatus*  
 Milkvetch, *Astragalus* spp.  
 Millet, *Panicum millaceum*  
 Millipede, *Apheloria* spp.  
 Millipedes: 3 26; 14 30, 48; 23 14, 20; 26 39; 30 15.  
 Milo, *Sorghum* spp.  
*Milvus migrans*: 26 30; 30 21, 24; 31 43.  
*Mimus polyglottos*: 12 56.  
*Miniopterus schreibersi*: 31 47.  
 Mink, *Mustela vison*

## Minnow

Cyprinid, *Phoxinus phoxinus*  
 Eastern mud, *Umbra pygmaea*  
 Fathead, *Pimephales promelas*  
 Mud, *Umbra limi*  
 Sheepshead, *Cyprinodon variegatus*  
 Various, *Leuciscus*, *Poeciliopsis* spp.

## Mint plant

Copper, *Aeolanthus biformifolius*  
 Various, *Aeolanthus* sp., *Elsholtzia* spp.

*Misgurnis fossilis*: 15 39.

## Mite

European red, *Panonychus ulmi*  
 McDaniel spider, *Tetranychus mcdanieli*  
 Northern fowl, *Ornithonyssus sylvarum*  
 Oribatid, *Platynothrus peltifer*  
 Pear rust, *Epitrimerus pyri*  
 Two-spotted spider, *Tetranychus urticae*  
 Various, *Choriotopes bovis*, *Typhlodromus* sp.

*Mizuhopecten yessoensis*: 33 51.

*Mnesampla privata*: 30 15.

Mockingbird, northern, *Mimus polyglottos*

*Mohoua ochrocephala*: 30 25.

*Moina irrasa*: 33 55.

Mole, *Talpa europaea*

Molly, shortfin, *Poecilia mexicana*

*Molothrus ater*: 3 12; 7 36, 40; 10 54; 12 56, 59; 21 34, 36; 24 8; 27 12.

## Monitor

Gould's, *Varanus gouldi*  
 Lace, *Varanus varius*

## Monkey

Black-handed spider, *Ateles geoffroyi*  
 Cynomolgus, *Macaca* spp.  
 Japanese, *Macaca fuscata*  
 Rhesus, *Macaca mulatta*  
 Marmoset, cotton top, *Callithrix jacchus*  
 Squirrel, *Saimiri sciurea*, *Saimiri* spp.  
 Various, *Cebus apella*

Monkeys: 4 18; 5 26; 7 55; 8 24, 28, 29; 9 iii, 27; 11 1; 14 iii, 3, 87, 99, 108; 15 4, 61; 22 5, 16; 24 13; 26 10, 46, 91; 28 23; 29 67, 93, 94; 30 11, 12, 36; 31 59, 60; 32 8, 9, 31, 32; 33 74; 34 51.

*Montastrea annularis*: 14 31; 21 9.

Moose, *Alces alces*

*Morethia boulengeri*: 21 33.

Morning glory, *Ipomoea* sp.

*Morone americana*: 29 29; 33 41; 34 44.

*Morone chrysops*: 21 12; 34 33.

*Morone saxatilis*: 2 8, 17, 23; 4 10; 5 14; 6 21; 7 13, 31, 47, 60; 10 28, 40, 59; 12 26, 31; 13 6, 7; 18 1; 21 33; 26 61; 29 29; 31 20, 26, 37, 51; 32 15; 33 58; 34 44.

*Morus bassanus*: 31 44.

Mosquito, *Aedes*, *Anopheles*, *Culex*, *Psorophora*

Mosquitofish, *Gambusia affinis*, *Gambusia holbrooki*

## Moss

Irish, *Chondrus crispus*  
 Sphagnum, *Sphagnum* sp.  
 Various, *Brachythecium*, *Fontinalis*, *Homalothecium sericium*, *Hypnum cupressiforme*, *Pleurozium schreberi*, *Racomitrium* sp., *Rhynchostegium riparioides*, *Tamenthypnum* sp.

## Moth

Cabbage, *Mamestra brassicae*  
 Codling, *Carpocapsa pomonella*, *Laspeyresia pomonella*  
 Diamondback, *Plutella xylostella*  
 Douglas fir tussock, *Orgyia pseudotsugata*  
 Greater wax, *Galleria melonella*  
 Gypsy, *Lymantria dispar*, *Porthetria dispar*  
 Pine, *Bupalus* spp.  
 Pineapple gummosis, see Lepidoptera  
 Pine noctuid, *Panolis flammea*  
 Various, *Ectomyelois ceratoniae*  
 Zygaenid, *Zygaena filipendulae*, *Z. trifolii*

*Mougeotia* sp.: 18 25; 26 66; 33 3.

## Mouse

Beach, or Oldfield, *Peromyscus polionotus*  
 Deer, *Peromyscus maniculatus*, *Peromyscus* spp.  
 Domestic, *Mus* spp.  
 Eastern harvest, *Reithrodontomys humulis*  
 Field, *Microtus arvalis*  
 Great Basin pocket, *Perognathus parvus*  
 House, *Mus musculus*  
 Little pocket, *Perognathus longimembris*  
 Long-tailed, *Pseudomys higginsii*  
 Meadow, *Microtus haydeni*  
 Mitchell's hopping, *Notomys mitchelli*  
 Plains, *Pseudomys australis*  
 Pocket, *Perognathus inornatus*  
 Salt marsh harvest, *Reithrodontomys raviventris*  
 Sandy inland, *Pseudomys hermannsburgensis*  
 Spinifex hopping, *Notomys alexis*  
 Western chestnut, *Pseudomys nanus*  
 Western harvest, *Reithrodontomys megalotis*  
 Western jumping, *Zapus princeps*  
 White-footed, *Peromyscus leucopus*  
 Wood, *Apodemus sylvaticus*  
 Yellow-necked field, *Apodemus flavicollis*  
 Mouth brooder, southern, *Pseudocrenilabrus philander*  
*Moxostoma duquesnei*: 14 33.  
*Mudalia potosensis*: 11 38.  
 Mudpuppy, *Necturus maculosus*  
*Mugil cephalus*: 1 15; 4 6; 12 31; 13 8; 17 36; 21 33; 22 12; 24 22; 31 26.  
*Mugil curema*: 26 36.  
 Mule, *Equus asinus* X *Equus caballus*

- Mullet  
 Gray, *Chelon labrosus*  
 Striped, *Mugil cephalus*  
 Yellow-eye, *Aldrichetta forsteri*  
 Various, *Rhinomugil corsula*  
 White, *Mugil curema*  
*Mullus barbatus*: 15 27; 31 26; 33 23.  
*Mummichog*, *Fundulus heteroclitus*  
*Murex brandaris*: 22 10.  
 Murre  
   Common, *Uria aagle*  
   Thick-billed, *Uria lomvia*  
 Murrelet, *Channa punctatus*  
*Mus musculus*: 24 8; 29 48, 89; 30 31; 33 36; 34 30.  
*Mus musculus domesticus*: 29 52, 62.  
*Mus* spp.: 1 4, 6, 7, 10; 2 24, 26, 31; 3 11, 13, 24, 25; 4 8, 18; 5 39; 6 27, 38, 39, 44; 7 41, 49, 55; 8 24-27; 9 iv, 8, 13, 16, 18, 24-26; 10 67; 11 1, 51-56, 62, 63; 12 12, 36, 38, 66, 73; 14 iii, 12, 53, 55, 87, 92, 99, 104; 15 4, 8, 10, 52-55, 57, 59-61, 64, 65; 17 41, 47, 54; 18 36, 37; 19 35, 41; 20 5, 23, 25; 21 2, 33, 34, 36, 38, 42; 22 2, 16, 19, 22, 23; 23 11, 35, 39, 40; 25 2, 27, 29; 26 11, 12, 14, 48, 77, 80, 82, 88, 91; 27 1, 3, 7, 12, 16, 17, 20; 28 7, 15, 17, 18, 23, 24; 29 65-67, 84, 89, 90; 30 6, 12, 31, 36, 39, 42; 31 54-56, 58, 59, 61; 32 31-33; 33 8, 10, 32, 44, 66, 75; 34 6, 9, 12-14, 35, 49, 51, 57, 59, 62, 64.  
*Musca autumnalis*: 24 36; 25 6, 28.  
*Musca domestica*: 3 17, 18; 9 13; 20 13, 14; 24 15, 16, 36; 25 7, 10, 28, 32; 27 7.  
*Musca* sp.: 3 23; 21 33.  
 Muscidae: 1 21; 9 iii, 1, 3; 13 1.  
 Mushroom, *Agaricus*, *Lactarius*  
 Muskellunge, *Esox masquinongy*  
 Muskox, *Ovibus moschatus*  
 Muskrat, *Ondatra zibethicus*  
 Mussel  
   Brown, *Perna indica*  
   Common, *Mytilus edulis*  
   Duck, *Anodonta anatina*, *A. nuttalliana*  
   Green-lipped, *Perna viridis*  
   Hooked, *Ischadium recurvum* (formerly *Brachidontes exustus*)  
   Lagoon, *Mytella strigeta*  
   Lake, *Anodonta piscinalis*  
   Ribbed, *Geukensia demissa*  
   Various, *Amblema* sp., *Anodonta*, *Mytilus*, *Perna*, *Villosa iris*  
   Zebra, *Dreissena polymorpha*  
 Mussels: 5 16; 6 88; 10 61; 11 25, 28; 12 53; 15 20, 37; 20 9; 26 20; 31 24; 33 36, 70.  
 Mustard, *Brassica juncea*  
*Mustela nigripes*: 30 4.  
*Mustela putorius*: 23 45; 29 90; 30 31, 38, 40; 31 46-48.  
*Mustela putorius furo*: 7 41, 43, 54; 10 64; 14 99; 26 3, 77, 80, 88; 30 31, 39.  
*Mustela vison*: 7 iv, 10, 24, 33, 41-43, 53, 54, 58, 60, 61; 10 37, 43, 54-56, 64, 66, 74; 26 46, 49, 88, 91; 30 9, 13; 31 1, 46, 48, 56-58, 61; 32 39, 40; 33 45, 66, 80; 34 30, 31, 35.  
*Mustelus antarcticus*: 12 35.  
*Mustelus canis*: 6 11; 32 15.  
*Mya arenaria*: 6 33, 34; 10 25, 47; 11 27, 29, 32; 14 52, 66; 15 45; 17 13; 26 56, 66, 67; 32 13, 23; 33 48, 51; 34 41, 47.  
*Myiarchus cinerascens*: 30 24.  
*Myiarchus crinitus*: 25 24; 29 82, 83.  
 Myctophidae: 14 100.  
*Myocastor coypus*: 30 32.  
*Myotis austroriparius*: 26 34.  
*Myotis dasycneme*: 17 16.  
*Myotis grisescens*: 7 24; 21 25, 28; 26 34.  
*Myotis lucifugus*: 7 25, 34; 14 44, 53; 21 28.  
*Myotis sodalis*: 25 9.  
*Myotis* spp.: 14 44.  
*Myoxocephalus quadricornis*: 21 15.  
*Myoxocephalus scorpius*: 2 9.  
*Myriophyllum* sp.: 18 23; 20 8; 23 21; 33 15.  
*Myriophyllum spicatum*: 6 30; 18 16, 21, 22; 22 10; 33 3.  
 Mysidaceans, *Mysidopsis*, *Mysis relicta*, *Praunus flexuosus*  
*Mysidopsis bahia*: 4 10, 15; 5 33; 6 26; 9 11, 22; 10 48, 59; 12 51; 13 6, 7; 14 66; 15 45; 17 27; 18 29; 19 26; 23 22; 24 19, 20, 26; 25 15, 16; 26 58; 32 25; 33 55; 34 42.  
*Mysidopsis bigelowi*: 34 42.  
*Mysidopsis formosa*: 34 42.  
*Mysidopsis* spp.: 2 16, 23; 7 27.  
*Mysis relicta*: 7 11, 29; 21 9; 26 41, 69; 31 49, 51.  
*Mystus gulo*: 26 26.  
*Mystus vittatus*: 3 9, 20, 21; 24 22.  
*Mytella strigata*: 33 19.  
*Mytilus californianus*: 10 25, 43; 11 48; 26 67; 32 13, 14, 18.  
*Mytilus edulis*: 2 5; 3 10; 5 12; 6 10, 34; 10 25, 48; 11 28, 32, 45; 12 28, 51; 14 31, 65, 66; 15 30, 41, 42, 48; 17 13, 15; 19 26, 28; 23 14, 22; 26 13, 20, 36, 41, 56, 66, 67; 28 4, 11; 29 22, 25, 26; 31 21, 23, 24, 34; 32 14, 23, 24, 29; 33 19, 40, 51, 70; 34 23, 41.  
*Mytilus edulis aoteanus*: 19 14; 32 14.  
*Mytilus edulis planulatus*: 2 5.  
*Mytilus galloprovincialis*: 5 12, 30, 37; 12 53; 29 54; 32 24; 33 35, 52.  
*Mytilus smaragdium*: 33 19.  
*Mytilus* spp.: 28 13; 31 23; 33 19, 40, 69.  
*Myxine glutinosa*: 11 47.  
*Nais* sp.: 6 23.

- Najas* spp.: 28 8, 10.  
*Najas guadalupensis*: 14 71.  
*Nannochloris oculata*: 18 22.  
*Nassarius obsoletus*: 12 51; 15 45, 49; 26 56; 32 13, 24; 33 73; 34 41.  
*Nassarius* sp.: 34 24.  
*Natrix* sp.: 5 17; 29 78.  
*Navicula* sp.: 14 70; 26 66; 34 40.  
*Neanthes arenaceodentata*: 6 22, 24, 26, 36; 11 37-39, 43; 14 66; 17 27; 21 10; 26 59, 70; 29 73.  
*Necturus maculosus*: 23 8; 26 10; 29 80.  
*Necturus* sp.: 29 80.  
Nematode, *Acrobeloides* sp., *Brugia pahangi*, *Bursaphelenchus xylophilus*, *Caenorhabditis elegans*, *Panagrellus redivivus*, *Parafilaria bovicola*  
Nematodes: 9 iii, 1; 15 15; 33 35.  
*Neopanope texana*: 18 31.  
*Neophocaena phocaenoides*: 31 28, 29.  
*Neotoma albigula*: 30 32.  
*Neotoma intermedia*: 30 32.  
*Neotoma lepida*: 30 38.  
*Nephrops norvegicus*: 10 24; 33 55.  
*Nephtys hombergi*: 2 7.  
*Neptunus pelagicus*: 10 13.  
*Nereis diversicolor*: 2 7; 6 10; 26 23, 42, 59, 66, 70; 29 27, 79; 32 15; 33 27, 56, 71; 34 24, 32, 42.  
*Nereis virens*: 5 36; 6 22; 7 47; 11 45; 21 29, 31; 31 51.  
*Neritina* sp.: 15 45.  
*Nerodia cyclopion*: 7 15.  
*Nerodia rhombifera*: 7 17.  
*Nerodia sipedon*: 14 35; 21 17.  
*Nerodia taxispilota*: 29 31.  
Newt  
California, *Taricha torosa*  
Eastern, *Notophthalmus viridescens*  
Rough-skinned, *Taricha granulosa*  
Various, *Triturus cristatus*  
*Nicotiana tabacum*: 2 12; 3 4, 23; 5 22; 6 13, 42; 10 22; 12 6; 20 11; 22 8; 23 13; 24 3; 29 68, 69; 34 29, 37.  
*Nicrophorus tomentosus*: 14 31.  
*Nitella* spp.: 19 24.  
*Nitroca spinipes*: 15 44, 47; 24 20; 34 42.  
*Nitzschia angularis*: 24 17.  
*Nitzschia closterium*: 29 71.  
*Nitzschia* spp.: 15 48; 26 53; 33 48.  
*Nocardia* spp.: 30 8.  
*Nocardiopsis* sp.: 21 4.  
*Noemacheilus barbatulus*: 26 15, 61.  
*Nomia melanderi*: 24 16.  
*Nostoc muscorum*: 3 18; 18 14; 19 24.  
*Notemigonus crysoleucas*: 24 9; 26 25; 29 30; 31 51.  
*Notiomystis cincta*: 30 25.  
*Notomys alexis*: 30 32.  
*Notomys mitchelli*: 30 32.  
*Notopterus notopterus*: 10 46, 59.  
*Notophthalmus viridescens*: 29 65, 80.  
*Notornis mantelli*: 30 24.  
*Notothernia gibberifrons*: 32 15; 33 24; 34 26.  
*Notropis cornutus*: 17 36.  
*Notropis hudsonius*: 8 11; 12 48.  
*Notropis venustus*: 4 7.  
*Nucella lapillus*: 15 49.  
*Nucellus lapillus*: 15 30, 40.  
*Numenius americanus*: 21 21, 28.  
*Numenius arquata*: 29 34.  
*Numenius phaeopus*: 33 27.  
*Nuphar luteum*: 2 10.  
*Nuphar* sp.: 20 8; 34 22.  
Nuthatch, white-breasted, *Sitta carolensis*  
Nutria, *Myocastor coypus*  
*Nycticorax nycticorax*: 1 32; 7 19, 32, 52; 8 1; 26 29, 43; 31 43, 45, 60; 34 28.  
*Nycticorax violaceus*: 4 7; 21 21.  
Oak  
Red, *Quercus rubra*  
Various, *Quercus* spp.  
Oat, *Avena sativa*  
*Oceanodroma furcata*: 1 32.  
*Ocenebra erinacea*: 26 20, 41.  
*Ochotona princeps*: 19 20.  
*Ochotona* sp.: 23 12.  
*Ochrogaster lunifer*: 30 15.  
*Ochromonas danica*: 33 48.  
*Octochaetus pattoni*: 10 57, 68.  
Octopus, *Eledone cirrhosa*, *Octopus vulgaris*, *Paroctopus* sp., *Polypus bimaculatus*  
*Octopus vulgaris*: 33 19.  
*Odobenus rosmarus*: 2 10; 21 25.  
*Odocoileus hemionus*: 4 12; 10 54, 56, 64; 12 68, 72; 14 53, 104; 19 iii, 17, 42, 46; 26 34; 29 36, 42, 67.  
*Odocoileus hemionus hemionus*: 29 42; 30 32.  
*Odocoileus hemionus columbianus*: 29 36, 42.  
*Odocoileus* sp.: 23 33; 33 32.  
*Odocoileus virginianus*: 2 14; 5 23; 12 34, 68; 14 45, 53; 15 32; 19 42; 26 34, 43; 29 36, 37, 42; 30 7, 14; 33 32, 37, 42; 34 31.  
Odonata: 9 19.  
*Odontotermes obesus*: 21 28.  
*Odontotermes* spp.: 33 47.  
*Odontotermes transvaalensis*: 34 23.  
*Oedemagena tarandi*: 27 6, 18.  
*Oedogonium cardiacum*: 3 22; 5 31; 8 19; 11 42; 17 20; 25 17.  
*Oedogonium* sp.: 6 30; 18 25; 33 3.  
*Oikomonas termo*: 24 14.  
Okra, *Abelmoschus esculentus*  
*Olea* spp.: 20 13.  
Oligochaetes: 7 29; 15 27, 48.

- Olisthodiscus lutens*: 6 32.  
 Olive, *Olea* spp.  
*Ommastrephes bartrami*: 2 5; 33 19.  
*Onchiurus apuanicus*: 18 13.  
*Oncopeltus fasciatus*: 27 7.  
*Oncorhynchus clarki*: 7 38; 9 10; 13 8; 21 15, 33; 23 23; 25 18; 26 61; 29 28; 32 18; 33 58.  
*Oncorhynchus gorbusha*: 11 38; 12 52.  
*Oncorhynchus keta*: 12 49; 21 15; 32 26.  
*Oncorhynchus kisutch*: 1 7, 8, 27, 29; 2 18; 3 9; 4 9; 5 18, 32; 6 31; 7 14, 30, 31, 49; 8 11, 12, 18, 21; 11 38; 12 26; 14 69; 17 15, 34; 19 28; 20 15, 17; 21 33; 23 23; 25 18; 26 61; 29 29, 74; 31 33; 32 27; 33 58; 34 44.  
*Oncorhynchus mykiss*: 1 8; 2 11, 18, 27, 28; 3 9; 4 3, 9; 5 26, 33, 35, 36, 40, 41; 6 20, 24-26, 31, 32; 7 31, 37, 47-49, 57, 60; 8 8, 11, 18, 20, 28; 9 8, 10; 10 46, 49, 59-61; 11 15, 37, 41, 43, 44, 48; 12 26, 48, 53, 55; 13 8; 14 13, 55, 57, 60-62, 69; 15 37, 43, 47; 17 15, 28, 29, 52; 18 29; 19 iii, 15, 16, 19, 27-29, 44; 20 10, 15, 18; 21 27, 33; 22 12, 13; 23 4, 23, 24, 26, 29; 24 12, 23; 25 18, 19; 26 9, 45, 46, 61, 62, 72, 84; 27 8; 28 12, 13, 25; 29 28, 74, 75, 78; 30 15; 31 26, 49, 50; 32 7, 27, 30; 33 6, 59, 71, 72, 76; 34 14, 26, 40, 44, 46, 47, 60, 64.  
*Oncorhynchus nerka*: 17 30, 31, 52; 19 19; 20 9, 15, 18; 26 62; 29 28.  
*Oncorhynchus* spp.: 6 21, 23, 25.  
*Oncorhynchus tshawytscha*: 1 27; 2 17; 5 18; 6 31; 7 30, 61; 15 34; 17 35; 21 33; 23 24; 26 62, 72; 28 12; 29 65, 75; 31 1, 26, 36, 37, 48; 32 27; 33 47, 60.  
*Ondatra zibethicus*: 10 37, 43; 14 45; 15 32; 29 37, 42; 33 32, 43.  
 Onion, *Allium* sp.  
*Oniscus asellus*: 14 57; 26 19.  
*Oonopsis* spp.: 5 6.  
*Operophtera brumata*: 31 39.  
*Ophiocephalus punctatus*: 33 61.  
*Ophioderma brevispina*: 15 42.  
*Ophiolobus* sp.: 22 8.  
*Ophryotrocha diadema*: 17 24.  
*Oplegnathus fasciatus*: 9 8, 11.  
*Oporornis tolmiei*: 25 25.  
 Opossum, *Didelphis virginiana*  
*Opsanus beta*: 13 9, 10, 11.  
*Opsanus tau*: 24 24.  
 Orange  
     Mandarin, *Citrus tachibana*  
     Southern mock, *Philadelphus* spp.  
     Sweet, *Citrus sinensis*  
*Orchestia gammarellus*: 26 21; 33 21, 41.  
*Orchestia mediterranea*: 26 21.  
*Orchestia traskiana*: 15 45.  
*Orcinus orca*: 31 29.  
*Orconectes immunis*: 13 7.  
*Orconectes limosus*: 10 46.  
*Orconectes nais*: 7 37, 45; 14 71; 21 31; 33 36.  
*Orconectes rusticus*: 24 20; 33 71.  
*Orconectes* sp.: 18 32.  
*Orconectes virilis*: 10 23; 26 22, 58, 69.  
*Oreochromis mossambicus*: 33 8.  
*Oreochromis niloticus*: 33 61, 72; 34 45.  
 Orfe, golden, *Leuciscus idus melanotus*  
*Ornithonussus sylvilarum*: 27 6, 10.  
*Ortalis cinereiceps*: 26 76.  
*Orthemis* sp.: 25 13.  
*Oryctolagus cuniculus*: 13 14; 15 10, 11, 52, 64; 17 47, 48, 53; 18 40; 19 37, 42; 20 4, 23-26; 23 34; 25 2; 30 2, 5, 6, 32, 33, 37.  
*Oryctolagus* sp.: 21 39, 42; 22 19, 23; 23 10, 11, 35, 40-42, 45; 24 12, 33; 25 27, 29, 30; 26 77, 80; 27 7, 8, 12, 17; 28 7, 15, 18, 23; 29 42, 52, 53, 59, 63, 94, 95; 30 10-12, 25, 36, 39; 32 9, 31, 33; 33 8, 9, 32, 66; 34 2, 7-9, 12, 30, 31, 49, 52, 58, 59.  
*Orygia pseudotsuga*: 25 24, 25.  
*Oryza sativa*: 3 iii, 1, 8, 19, 27; 5 22; 8 29; 9 1; 10 22; 12 39, 40; 14 26; 17 1, 19; 20 12; 24 2; 26 8; 34 21, 37.  
*Oryzaephilus surinamensis*: 13 1.  
*Oryzias latipes*: 2 22; 22 13; 29 75, 77.  
*Oryzomys palustris*: 29 90.  
*Oscillatoria* sp.: 34 37.  
*Osmerus mordax*: 1 29; 8 11; 15 31; 17 15.  
 Osprey, *Pandion haliaetus*  
 Ostracods, *Cypericercus* sp., *Cypicerus* sp.,  
     *Cypridopsis* sp., *Cyprinotus* sp., *Cyrinofus* sp.  
*Ostrea edulis*: 15 2, 30, 42; 26 20.  
*Ostrea equestris*: 32 14.  
*Ostrea sinuata*: 32 14.  
*Ostrea* sp.: 31 23.  
 Otter  
     River, *Lutra canadensis*  
     Sea, *Enhydra lutris*  
     Various, *Lutra* spp.  
*Otus asio*: 7 52, 60; 21 19; 23 31.  
 Ovenbird, *Seiurus aurocapillus*  
*Ovibus moschatus*: 33 33.  
*Ovis aries*: 3 13; 9 14, 27; 10 37; 12 68, 69; 14 iii, 3, 12, 45, 55, 87, 92-94, 99; 15 33; 17 48; 18 12, 37; 19 1, 5, 6, 17-19, 21, 22, 30, 31; 21 39; 22 16, 20; 23 4, 10, 12, 33, 35, 42; 24 34; 25 2, 3, 30; 26 80, 81, 88; 27 12, 17-20; 28 18; 29 38, 42, 52, 59, 60, 63, 64, 90, 91, 94; 30 1-6, 33, 37; 32 9; 33 1, 66, 77; 34 31, 38.  
*Ovis canadensis*: 6 15.  
*Ovis* sp.: 1 33; 3 24; 4 8, 18, 19; 5 1, 26, 28, 29, 41; 9 1, 24; 10 43; 12 3; 15 15, 60, 64, 68; 18 36; 19 36, 37, 41, 47, 49; 25 27; 26 3, 8-10, 12, 34, 39, 46, 49, 77,

- 90, 91; 29 63, 67, 100; 30 38, 39; 33 4, 8-11, 33, 43, 44, 45, 65, 74, 78, 79, 81; 34 1, 37, 59.
- Owl
- Burrowing, *Athene cunicularia*
  - Common barn, *Tyto alba*
  - Eagle, *Bubo bubo*
  - Great horned, *Bubo virginianus*
  - Laughing, *Sceloglaux albifacies*
  - Long-eared, *Asio otus*
  - Screech, *Otus asio*
  - Short-eared, *Asio flammeus*
  - Tawny, *Strix aluco*
  - Tengmalm's, *Aegolius funereus*
- Oxya velox*: 33 11.
- Oxylobium* spp.: 30 16.
- Oyster
- American, *Crassostrea virginica*
  - European flat, *Ostrea edulis*
  - Pacific, *Crassostrea gigas*
  - Rock, *Saccostrea cucullata*
  - Sydney rock, *Crassostrea commercialis*
  - Various, *Crassostrea*, *Ostrea*, *Saccostrea* sp.
- Oystercatcher, Eurasian, *Haematopus ostralegus*
- Oysters: 5 27; 6 17, 34, 44; 7 48, 49; 11 40; 15 11, 20, 27, 34, 43, 70; 17 iv; 20 9, 27; 21 2, 10; 26 11, 20, 65, 82, 90; 34 29.
- Pachymetopan grande*: 6 37.
- Pacifastacus* sp.: 10 23; 19 26; 33 21.
- Paddlefish, *Polyodon spathula*
- Pademelon, *Thylogale billardieri*
- Pagophilus groenlandica*: 10 54, 56, 65, 74.
- Pagurus longicarpus*: 2 16; 26 58; 34 42.
- Pagurus* sp.: 22 10.
- Paintbrush, Indian, *Castilleja* spp.
- Palaemon elegans*: 26 58, 68, 69.
- Palaemon macrodactylus*: 4 10; 21 31.
- Palaemon serratus*: 26 11, 41.
- Palaemon* spp.: 26 69.
- Palaemonetes kadiakensis*: 4 9; 7 37, 45.
- Palaemonetes pugio*: 2 7; 4 10; 6 35; 7 38; 11 37-39; 13 7; 14 31; 15 45, 48; 17 27; 18 30; 21 31; 24 20, 26; 25 16; 26 22; 31 37, 51; 32 25, 29.
- Palaemonetes varians*: 26 69.
- Palaemonetes vulgaris*: 1 12, 15, 21, 22; 2 16; 27 8.
- Palicourea marcgravii*: 30 2, 13.
- Palm, Iraqi date, *Phoenix* sp.
- Panagrellus redivivus*: 9 25, 28.
- Pandalus borealis*: 12 29, 35.
- Pandalus jordani*: 33 21.
- Pandalus montagui*: 2 7; 14 31; 26 11, 23, 58, 69; 34 24.
- Pandalus* spp.: 12 29.
- Pandion haliaetus*: 4 7; 6 14; 10 34; 12 21, 32; 21 21, 22, 27; 26 29, 43; 31 43; 34 28.
- Panicum millaceum*: 18 41; 23 3, 12.
- Panolis flammea*: 33 16, 39.
- Panonychus ulmi*: 15 65.
- Pantala hymeneae*: 2 28.
- Pantala* sp.: 25 13.
- Panthers: 14 99.
- Panulirus argus*: 34 24.
- Panulirus cygnus*: 12 35.
- Panulirus interruptus*: 2 7.
- Panulirus japonicus*: 24 12.
- Papaver orientale*: 33 14.
- Paphia undulata*: 33 19.
- Papio anubis*: 14 95, 99; 21 39; 23 10; 28 18; 30 5.
- Paracentrotus lividus*: 14 31; 17 25; 33 56.
- Parafilaria bovicola*: 12 12.
- Paragnetina media*: 25 21.
- Paragrapsus quadridentatus*: 33 55.
- Paralabrax clathratus*: 33 24; 34 26.
- Paralabrax nebulifer*: 31 36.
- Paralichthys dentatus*: 5 34; 32 27; 33 48, 61.
- Paralichthys lethostigma*: 26 36; 33 24; 34 26.
- Paralichthys* sp.: 33 6, 61.
- Paralithodes camtschatica*: 12 29; 26 41.
- Paramecium* spp.: 11 48; 26 53; 34 12.
- Paranais* sp.: 8 19.
- Paratya australiensis*: 33 10, 55.
- Pardosa* sp.: 25 23.
- Parhalella natalensis*: 33 55.
- Parimelia baltimorensis*: 14 23, 24; 33 14.
- Paroctopus* sp.: 12 35.
- Parophrys vetulus*, see *Pleuronectes vetulus*
- Paropsis atomaria*: 23 20.
- Parrot
- Port Lincoln, *Barnardius zonarius*
  - Red-rumped, *Psephotus haematonotus*
- Partridge, gray, *Perdix perdix*
- Parus atricapillus*: 25 24.
- Parus biocolor*: 25 24.
- Parus gambeli*: 25 25.
- Parus major*: 25 24; 31 39.
- Paspalum notatum*: 1 21, 23.
- Passer domesticus*: 3 12, 15; 5 23; 9 9; 10 52; 13 13; 14 39; 30 21; 32 8.
- Passer montanus*: 25 24.
- Passerina amoena*: 25 25.
- Passerina cyanea*: 25 24.
- Passiflora* spp.: 22 24.
- Passion fruit, *Passiflora* spp.
- Patella caerulea*: 15 27, 30.
- Patella vulgata*: 32 14; 33 52; 34 24.
- Pea, *Pisum sativum*
- Peach, *Prunus persica*
- Peanut, *Arachis hypogaea*
- Pear, *Pyrus communis*
- Pear scylla, *Psylla pyricola*



- Pearsonia metallifera*: 34 21.  
*Pecan, Carya illinoensis*  
*Pecten alba*: 12 35.  
*Pecten jacobaeus*: 33 20.  
*Pecten maximus*: 2 6; 15 30, 34.  
*Pecten novae-zelandiae*: 19 15.  
*Pecten* spp.: 26 20.  
 Peewee, eastern wood-, *Contopus virens*  
*Pelecanus occidentalis*: 2 10; 4 7; 5 14; 6 14; 10 34; 12 21, 32; 14 39; 21 22; 26 29; 33 27; 34 28.  
*Pelecanus* sp.: 4 14; 7 34, 53.  
 Pelican  
     Brown, *Pelecanus occidentalis*  
     Various, *Pelecanus* sp.  
*Pelvetia canaliculata*: 33 15.  
*Penaeopsis joyneri*: 9 20.  
*Penaeus aztecus*: 5 34; 7 38; 9 11; 11 38, 40; 12 29; 13 6; 18 30; 21 31; 22 11; 26 35; 28 11; 33 21; 34 24.  
*Penaeus brasiliensis*: 26 23.  
*Penaeus duorarum*: 4 10; 7 38; 11 40, 43; 18 30; 19 26; 21 31; 24 20, 26.  
*Penaeus indicus*: 10 48; 33 72.  
*Penaeus latisulcatus*: 12 35.  
*Penaeus setiferus*: 10 61; 12 29; 13 21; 26 23.  
*Penaeus* spp.: 2 7.  
*Penaeus vannamei*: 17 20.  
 Penguin  
     Adelie, *Pygoscelis adeliae*  
     Chinstrap, *Pygoscelis antarctica*  
     Gentoo, *Pygoscelis papua*  
 Penguins: 26 30; 33 26.  
*Penicillium* spp.: 30 8, 9.  
*Peophila guttata*: 30 21.  
 Pepper, *Piper* spp.  
*Perameles gunni*: 30 33.  
*Perameles nasuta*: 30 33.  
*Perca flavescens*: 3 9; 4 9; 5 32; 7 38, 48; 8 11, 16; 10 29; 12 26; 15 31; 17 15; 23 24; 25 19; 26 25, 26; 29 29, 50; 31 33, 37; 33 24; 34 33.  
*Perca fluviatilis*: 33 35.  
 Perch  
     Climbing, *Anabas testudineus*  
     Spangled, *Leipotherapon unicolor*  
     Various, *Perca fluviatilis*  
     White, *Morone americana*  
     Yellow, *Perca flavescens*  
*Perga dorsalis*: 30 15.  
*Perdix perdix*: 4 12; 7 20; 10 2, 52, 62; 12 60.  
*Peridinium gatunense*: 29 64.  
*Periplaneta americana*: 20 14; 24 14, 16; 25 9; 27 7.  
 Periwinkle, *Littorina littorea*  
*Perna canaliculus*: 32 14.  
*Perna indica*: 33 52.  
*Perna viridis*: 26 21, 56; 33 20, 52.  
*Pernis apivorus*: 14 2, 3.  
*Perognathus inornatus*: 30 33.  
*Perognathus longimembris*: 30 38.  
*Perognathus parvus*: 29 91.  
*Peromyscus leucopus*: 2 25; 3 15; 7 41, 56; 9 iv, 2, 23, 24, 26; 14 45, 47, 53; 15 61; 24 8; 26 38; 29 91, 96; 30 39; 34 31.  
*Peromyscus maniculatus*: 11 54; 14 45, 46, 53; 15 33; 24 8, 9; 29 91; 33 37.  
*Peromyscus polionotus*: 1 7, 17; 3 13-15; 8 8; 29 91.  
*Peromyscus* spp.: 30 33, 38.  
 Petrel  
     Grey-faced, *Pterodroma macroptera*  
     Southern giant, *Macronectes giganteus*  
     Storm, *Oceanodroma furcata*  
 Petrels: 26 30; 33 26.  
*Petrogale penicillata*: 30 8, 25.  
*Petromyzon marinus*: 17 37; 21 15, 33; 29 75.  
 Petromyzontidae: 11 33.  
*Phaeodactylum tricornutum*: 2 22; 14 65, 70; 22 10; 26 53; 34 40.  
*Phalacrocorax atriceps*: 32 16; 33 26; 34 27.  
*Phalacrocorax auritus*: 7 20, 32; 8 8, 13; 31 39, 43.  
*Phalacrocorax carbo*: 7 21, 36; 31 44.  
*Phalacrocorax* sp.: 1 32; 31 44, 45.  
*Phalaris arundinacea*: 29 23, 41.  
*Phaseolus lunatus*: 23 3, 12, 14, 15, 20; 25 7.  
*Phaseolus* sp.: 3 23; 4 1; 17 19; 22 24; 23 15; 24 3, 10; 28 8; 32 20.  
*Phaseolus vulgaris*: 7 29; 14 56; 20 13; 23 19.  
*Phasianus colchicus*: 1 6, 7; 2 12; 3 12, 14; 4 8, 12, 17; 5 23; 7 21, 33, 40; 9 iv, 1, 14, 23, 30; 10 2, 34, 50, 52, 54, 63, 71; 12 60; 13 13, 15; 14 12; 17 21, 39; 18 34; 21 34, 35; 22 16; 26 76; 27 10; 30 21; 31 53.  
*Phasianus* sp.: 3 8, 16; 5 6; 7 52, 53; 14 86.  
 Pheasant, ring-necked, *Phasianus colchicus*  
*Philadelphus* spp.: 23 12.  
*Philarctus quaeris*: 17 28.  
*Philesturnus carunculatus*: 30 25.  
*Philodena acuticornis*: 6 20; 26 54; 34 40.  
*Philohela minor*, see *Scolopax minor*  
*Phleum pratense*: 7 11; 18 12; 34 34.  
*Phoca groenlandica*: 6 12; 10 43.  
*Phoca hispida*: 5 15; 7 25; 10 61, 64; 26 34, 44; 31 34; 34 32.  
*Phoca hispida saimensis*: 21 25.  
*Phoca largha*: 29 35.  
*Phoca* spp.: 5 15, 25.  
*Phoca vitulina*: 5 15; 7 34; 10 37; 12 34; 14 53; 15 33; 20 9; 21 25; 31 29, 30; 33 28; 34 32.  
*Phocoena phocoena*: 26 34; 31 22, 30, 31; 33 28.  
*Phocoena sinus*: 34 31.  
*Phocoenoides dalli*: 21 25; 26 34; 31 31.

- Phoenicopterus ruber*: 26 29, 30, 43.  
*Phoenicopterus ruber roseus*: 33 27.  
*Phoenix dactylifera*: 20 8.  
*Phoenix* sp.: 13 23.  
*Phomopsis leptostromiformes*: 26 12.  
*Phormidium inundatum*: 32 21.  
*Photobacterium phosphoreum*: 33 9.  
*Phoxinus lagowski*: 25 23.  
*Phoxinus phoxinus*: 7 48; 12 48; 26 62; 29 54.  
*Phragmites* sp.: 22 9; 33 36.  
*Physa heterostrophia*: 6 20; 23 22; 26 56; 29 72.  
*Physa* sp.: 5 31; 8 19; 11 42, 46; 17 20, 24; 18 32; 25 13, 17, 23; 28 11; 33 47, 52.  
*Physeter catodon*: 29 35.  
*Physeter macrocephalus*: 7 25; 23 8; 34 32.  
*Pica nuttalli*: 30 25.  
*Pica pica*: 10 54; 23 12; 27 1, 2, 9, 11, 20; 30 22, 25, 39.  
*Pica* sp.: 23 4.  
*Picea abies*: 14 26, 48; 33 15.  
*Picea alba*: 12 22.  
Picidae: 17 4.  
Pickerel  
    Chain, *Esox niger*  
    Various, *Esox*  
*Pieris brassicae*: 9 6, 13; 25 9; 30 14.  
Pig  
    Domestic, *Sus* spp.  
    Feral, *Sus scrofa*  
    Guinea, *Cavia* spp.  
Pigeon  
    Domestic, *Columba livia*  
    Nicobar, *Caloenas nicobarica*  
Pika, *Ochotona princeps*, *Ochotona* sp.  
Pike  
    Northern, *Esox lucius*  
    Various, *Hoplias* sp.  
*Pimephales promelas*: 1 8, 12, 13, 18; 2 31; 3 9; 4 9, 11, 14-16; 5 32; 6 24-26; 7 51; 8 18, 22; 9 10, 18, 22; 10 58; 11 38, 41; 12 48, 55; 13 6, 7, 20; 14 64; 15 46; 17 32, 33; 18 29; 19 27; 21 33; 23 24, 27, 28; 24 24; 25 19; 26 62, 63, 71; 28 12; 29 75, 76; 31 26, 50; 32 27, 30; 33 9, 10, 61, 72; 34 45, 46.  
Pine  
    Digger, *Pinus sabiniana*  
    Lodgepole, *Pinus contorta*  
    Longleaf, *Pinus palustris*  
    Maritime, *Pinus pinaster*  
    Mugho, *Pinus* sp.  
    Shortleaf, *Pinus echinata*  
    Slash, *Pinus elliotii*  
    Stone, *Pinus pinea*  
    Sugar, *Pinus lambertiana*  
    Southern, *Pinus* sp.  
    White, *Pinus strobus*  
Pineapple, *Ananas comosus*  
Pinfish, *Lagodon rhomboides*  
*Pinna nobilis*: 6 33; 34 24.  
Pinnipeds: 14 99; 26 33.  
Pintail, northern, *Anas acuta*  
*Pinus contorta*: 33 69.  
*Pinus echinata*: 14 26.  
*Pinus elliotii*: 29 69.  
*Pinus lambertiana*: 29 69.  
*Pinus palustris*: 29 69.  
*Pinus pinaster*: 33 46.  
*Pinus pinea*: 33 46.  
*Pinus sabiniana*: 20 13.  
*Pinus silvestris*: 12 22, 41; 29 48, 56.  
*Pinus* sp.: 3 4, 15, 23; 12 41; 20 11; 29 69; 33 45, 69, 78.  
*Piper* spp.: 20 8; 22 2; 24 3; 34 29.  
*Pinus strobus*: 33 69.  
*Pipilo erythrophthalmus*: 25 24.  
*Pipilo* spp.: 30 23.  
*Pipistrellus pipistrellus*: 17 48; 31 47.  
*Piranga olivacea*: 25 24.  
Piranha, *Seerassalmus* sp.  
*Pisaster brevispinus*: 33 21.  
*Pistia* sp.: 28 8.  
*Pisum sativum*: 4 19; 12 39, 41; 18 13; 19 13; 22 5; 24 3; 26 8; 29 69; 34 13, 21.  
*Pitar morrhuana*, see *Pitar morrhuanus*  
*Pitar morrhuanus*: 6 10; 26 21; 32 14.  
*Pituophis catenifer*: 30 17.  
*Pitymys pinetorum*, see *Microtus pinetorum*  
*Placopecten magellanicus*: 2 6; 11 28; 12 28; 32 14.  
Plaice, *Platichthys flesus*, *Pleuronectes platessa*  
*Planchonella oxyedra*: 34 21.  
*Planorbis corneus*: 29 76.  
Plant  
    Copper-tolerant, *Becium homblei*  
    Floating, *Eichornia*, *Jussiaea* sp., *Pistia* sp.  
    Heliotrope, *Echium* sp., *Heliotropium* sp., *Senecio*  
    Lupinosis, *Lupinus* spp.  
    Marine flowering, *Posidonia oceanica*  
    Nickel hyperaccumulator, *Allysum* spp., *Geissosis prainosa*, *Homalium* spp., *Hybanthus* spp., *Pearsonia metallifera*, *Planchonella oxyedra*, *Psychotria douarrei*, *Sebertia acuminata*  
    Perennial, *Rubus* spp.  
    Poisonous (fluoroacetate-containing), *Acacia*, *Dichapetalum*, *Gastrolobium*, *Oxylobium* spp.  
    Vascular, *Cassiope* sp.  
*Platalea leucorodia*: 31 44.  
*Platichthys flesus*: 2 8; 7 31, 48, 60; 11 40; 14 33; 31 26, 27, 38; 33 61.

- Platycentropus radiatus*: 25 24.  
*Platycercus elegans*: 30 25.  
*Platymonas subcordiformis*: 14 70.  
*Platynothrus peltifer*: 33 43, 47, 78.  
*Plecotus phyllotis*: 25 9.  
*Plectonema boryanum*: 25 11, 20, 21.  
*Plegadis chihi*: 5 14.  
*Plethodon cinereus*: 33 37.  
*Pleurobrachia pileus*: 33 49.  
*Pleuronectes americanus*: 2 23; 5 34; 8 18; 11 29; 15 31; 31 27, 36, 37; 32 16, 19, 27, 28; 33 24, 62; 34 26.  
*Pleuronectes ferruginea*: 2 8; 12 52; 15 38; 20 17; 31 25, 38; 33 23; 34 25.  
*Pleuronectes flesus*: 10 61; 29 55.  
*Pleuronectes platessa*: 14 67; 17 34; 26 9, 42, 71; 29 21, 30; 29 78; 32 30; 33 72.  
*Pleuronectes vetulus*: 11 45, 46, 48; 12 32; 31 33.  
*Pleurozium schreberi*: 34 21.  
*Plum*, *Prunus* spp.  
*Plumaria elegans*: 12 50.  
*Plutella xylostella*: 24 6, 15.  
*Poa annua*: 12 6, 39.  
*Poa pratensis*: 22 8.  
*Poa* spp.: 26 38; 33 37.  
*Pochard*, *Aythya ferina*  
*Podiceps cristata*: 10 35.  
*Podiceps nigricollis*: 5 20.  
*Podiceps* spp.: 7 22.  
*Podicipediformes*: 10 12.  
*Podilymbus podiceps*: 4 6.  
*Podoclavella moluccensis*: 6 11.  
*Podophthalmus vigil*: 6 34.  
*Poecilia mexicana*: 22 12.  
*Poecilia reticulata*: 3 21; 4 9; 5 6, 37; 8 18, 21, 28; 10 61; 14 71; 15 46; 17 36, 37; 22 13; 26 62, 71; 27 8; 31 50, 51; 32 27; 33 61; 34 9, 45.  
*Poeciliopsis* spp.: 11 36, 48.  
*Pogona barbatus*: 30 17.  
*Pogonomyrmex* spp.: 30 15.  
*Polecat*, *Mustela putorius furo*  
*Poliioptila caerulea*: 25 24.  
*Pollack*, walleye, *Theragra chalcogramma*  
*Polycarpa pedunculata*: 26 37.  
*Polychaetes*, *Capitella capitata*, *Glycera dibranchiata*, *Lycastis ouanaryensis*, *Marphysa sanguinea*, *Neanthes arenaceodentata*, *Nereis*, *Ophryotrocha diadema*, *Sabella pavonina*  
*Polygonum* sp.: 22 10.  
*Polyodon spathula*: 21 12; 31 27, 37.  
*Polypus bimaculatus*: 20 9.  
*Pomacea paludosa*: 33 36, 52, 73.  
*Pomacea* spp.: 17 20, 39.  
*Pomatomus saltatrix*: 2 8; 10 40; 34 35.  
*Pomoxis annularis*: 2 11; 17 34; 25 19; 31 34.  
*Pomoxis nigromaculatus*: 23 25; 25 21, 23; 26 25; 31 34.  
Pompano, Florida, *Trachinotus carolinus*  
*Pontoporeia affinis*: 2 23, 29.  
*Pontoporeia hoyi*: 11 45; 21 10; 31 49.  
*Pontoporeia blainvillei*: 33 29.  
Poplar, tulip, *Liriodendron tulipifera*  
Poppy, *Papaver orientale*  
*Populus grandidentata*: 29 23.  
*Populus* sp.: 29 48.  
*Populus tremula*: 29 56; 34 35.  
*Populus tremuloides*: 7 11; 29 23.  
*Porcellio scaber*: 14 48, 57; 26 19, 40, 50-52; 33 76, 78.  
*Porcellio* sp.: 5 22.  
Porcupine  
    Indian crested, *Hystrix indica*  
    North American, *Erethizon dorsatum*  
Porgy, *Pachymetopan grande*  
Porgy  
    Black, *Sparus macrocephalus*  
    Jolthead, *Calamus bajonado*  
    Various, *Pachymetopan grande*  
*Porichthys notatus*: 23 25.  
*Porites* spp.: 21 9.  
*Porphyra* sp.: 29 25; 34 22.  
*Porphyra martinica*: 4 7.  
Porpoise  
    Dall's, *Phocoenoides dalli*  
    Finless, *Neophocaena phocaenoides*  
    Harbor, *Phocoena phocoena*  
    Various, *Phocoena sinus*  
*Porthetria dispar*: 14 31; 20 3, 13; 26 38; 34 22, 34.  
*Portunus pelagicus*: 26 68.  
*Porzana carolina*: 14 40.  
*Posidonia oceanica*: 10 22.  
Possum, brush-tailed, *Trichosurus vulpecula*  
*Potamocorbula amurensis*: 32 14, 24.  
*Potamogeton carinatus*: 28 10.  
*Potamogeton crispus*: 2 3; 15 4; 28 10.  
*Potamogeton foliosus*: 14 71.  
*Potamogeton pectinatus*: 18 24, 25; 33 36.  
*Potamogeton perfoliatus*: 18 16, 17, 20, 21.  
*Potamogeton pusillus*: 22 10.  
*Potamogeton richardsoni*: 2 10.  
*Potamogeton* spp.: 12 23; 14 27; 18 23; 20 8; 23 21; 28 4, 8, 13; 33 3, 15; 34 32.  
*Potamogeton tricarinatus*: 28 2, 10.  
Potato  
    Common, *Solanum tuberosum*  
    Sweet, *Ipomoea batatas*  
*Praunus flexuosus*: 26 58.  
Prawn  
    Deep sea, *Pandalus borealis*  
    Freshwater, *Macrobrachium* spp.

- Various, *Pandalus*, *Penaeus*  
 White, *Penaeus indicus*  
*Prionace glauca*: 12 35; 26 26; 34 35.  
*Pristina* sp.: 2 21.  
*Procambarus acutus acutus*: 3 9; 26 69.  
*Procambarus blandingi*: 1 4, 12, 21.  
*Procambarus clarki*: 1 14, 18; 9 19; 13 7; 21 10; 22 11;  
 24 12, 20, 26; 33 55, 71.  
*Procambarus* spp.: 4 7.  
*Procentrum micans*: 26 53.  
*Prorocentrum mariae-lehouriae*: 32 21.  
*Procladius* sp.: 25 22.  
*Procyon lotor*: 1 21; 5 24; 7 41, 56; 10 38, 43; 14 46, 99,  
 104; 21 26; 30 33, 37, 39; 33 33; 34 31.  
*Progne subis subis*: 24 8.  
 Pronghorn, *Antilocapra americana*  
*Prosopium cylindraceum*: 10 29; 15 31.  
*Prosopium williamsoni*: 23 12; 29 28.  
*Prosthemadera novae-seelandiae*: 30 25.  
*Prototheca zopfii*: 23 21.  
 Protozoan, *Blepharisma undulans*, *Chilomonas*  
*paramecium*, *Colpoda*, *Costia* sp., *Cristigera* sp.,  
*Entosiphon sulcatum*, *Faurea salina*,  
*Ichthyophthirius* sp., *Oikomonas termo*, *Parame-*  
*cium* spp., *Spirostomum ambiguum*, *Tetrahymena*  
*pyriformis*, *Trichodina* sp., *Uronema*, *Vorticella* sp.  
 Protozoans: 26 19; 29 72; 34 23, 38.  
 Prune, *Prunus domestica*  
*Prunella modularis*: 27 9.  
*Prunus amygdalus*: 22 24; 23 11, 12, 15, 19.  
*Prunus armenica*: 23 3, 4, 12, 13.  
*Prunus avium*: 10 22.  
*Prunus domestica*: 20 8.  
*Prunus dulcis*: 23 3.  
*Prunus laurocerasus*: 23 3.  
*Prunus persica*: 23 3, 4, 12; 26 5.  
*Prunus serotina*: 14 27, 48.  
*Prunus* spp.: 23 3, 4, 12, 19; 26 5.  
*Psectocladus* sp.: 22 11.  
*Psephotus haematonotus*: 30 22.  
*Psettichthys melanostictus*: 11 40, 42.  
*Pseudacris triseriata*: 22 13.  
*Pseudagrion* spp.: 13 7.  
*Pseudemys floridana hoyi*: 29 32.  
*Pseudemys floridana peninsularis*: 29 32.  
*Pseudemys scripta*: 29 32.  
*Pseudis paradoxa*: 17 20.  
*Pseudocrenilabrus philander*: 33 24.  
*Pseudodiaptomus coronatus*: 33 56.  
*Pseudomonas* spp.: 3 6; 5 4; 9 3; 15 4; 23 13; 26 53; 30  
 8, 9.  
*Pseudomys australis*: 30 33.  
*Pseudomys hermannsburgensis*: 30 33.  
*Pseudomys higginsii*: 30 33.  
*Pseudomys nanus*: 30 33.  
*Pseudopleuronectes americanus*: see *Pleuronectes*  
*americanus*  
*Pseudoptergorgia* spp.: 21 9.  
*Pseudorasbora parva*: 9 20.  
*Pseudotsuga menziesii*: 25 24, 25; 33 69.  
*Psidium guajava*: 18 41.  
*Psithyrus bohemicus*: 33 16  
*Psorophora columbiae*: 24 20; 25 23.  
*Psychotria douarrei*: 34 21.  
*Psylla pyricola*: 24 14.  
 Ptarmigan  
 Common, *Lagopus mutus*  
 Willow, *Lagopus lagopus*  
*Pterodroma macroptera*: 30 6.  
*Pteronarcella badia*: 7 37; 13 6, 7.  
*Pteronarcys californica*: 9 10; 12 46; 13 7; 21 31; 22 11;  
 32 25; 33 70.  
*Pteronarcys dorsata*: 12 46; 24 20.  
*Pteronarcys* sp.: 4 9.  
*Ptychocheilus oregonensis*: 10 40.  
*Puccinia graminis*: 28 3.  
 Puffer, northern, *Sphoeroides maculatus*  
 Puffins, *Fratercula* spp.  
*Puffinus pacificus*: 5 14.  
 Pumpkinseed, *Lepomis gibbosus*  
*Puntius conchoniensis*: 14 64.  
*Puntius gonionotus*: 22 12.  
 Pupfish, desert, *Cyprinodon macularis*  
*Pusa hispida*: 31 29, 31.  
*Pusa vitulina*: 31 60.  
*Pygoscelis adeliae*: 2 9; 21 22; 32 16; 33 26; 34 27.  
*Pygoscelis antarctica*: 32 16; 33 26; 34 27.  
*Pygoscelis papua*: 32 16; 33 26; 34 27.  
*Pylodictis olivaris*: 21 12; 31 25.  
 Pyrethrum flower, *Chrysanthemum cinariaefolium*  
*Pyrus communis*: 4 1; 5 22; 15 65, 69; 20 8, 13; 23 3.  
*Pyrus* spp.: 23 15; 24 3.  
 Pytiscidae: 2 28.  
 Quahog or quahaug  
 Northern, *Mercenaria mercenaria*  
 False, *Pitar morrhuanus*  
 Ocean, *Arctica islandica*  
 Southern, *Mercenaria campechiensis*  
 Quail  
 California, *Callipepla californica*  
 Common, *Coturnix coturnix*  
 Coturnix, *Coturnix risoria*  
 Gambel's, *Callipepla gambeli*  
 Japanese, *Coturnix japonica*  
 Quelea, *Quelea quelea*  
*Quelea quelea*: 3 12, 15.  
*Quercus rubra*: 34 21.

*Quercus* spp.: 12 41; 25 24, 25; 26 17, 51, 82; 29 48; 31 39; 33 13.  
*Quiscalus mexicanus*: 4 6.  
*Quiscalus quiscula*: 3 12, 17; 7 36, 52; 10 54; 13 13; 21 19, 34, 36; 27 12.  
 Quokka, *Setonix brachyurus*  
 Quoll  
   Eastern native, *Dasyurus viverrinus*  
   Tiger, *Dasyurus maculatus*  
   Various, *Dasyurus*  
 Rabbit  
   European, *Oryctolagus cuniculus*  
   Various, *Lepus*, *Oryctolagus* sp., *Sylvilagus*  
 Raccoon, *Procyon lotor*  
 Racerunner, six-lined, *Cnemidophorus sexlineatus*  
 Radish, *Raphanus sativus*, *Raphanus* spp.  
 Ragwort, tansy, *Senecio jacobaea*  
 Rail  
   Clapper, *Rallus longirostris*  
   Sora, *Porzana carolina*  
*Raja clavata*: 32 30.  
*Raja erinacea*: 8 18.  
*Raja* sp.: 12 32, 35.  
*Rallus longirostris*: 1 32; 4 7.  
*Ramalina fraxinea*: 29 51.  
*Rana catesbeiana*: 8 20; 9 10; 10 30; 13 6; 14 34, 50, 72; 18 32; 30 17.  
*Rana clamitans*: 14 50; 33 25, 37; 34 26.  
*Rana dalmatina*: 26 64.  
*Rana esculenta*: 24 12.  
*Rana japonica*: 28 7.  
*Rana pipiens*: 6 12; 10 30, 47, 59; 11 49; 14 72; 20 18; 22 13; 29 79, 81; 30 17; 32 28; 33 63.  
*Rana pipiens pipiens*: 24 24.  
*Rana sphenoccephala*: 4 9.  
*Rana* spp.: 12 32; 14 34; 21 17; 26 72; 29 80; 32 7.  
*Rana temporaria*: 15 46; 22 9; 33 25.  
*Rana temporaria*: 10 31.  
*Rana utricularia*: 14 72; 24 9.  
*Rangia cuneata*: 3 10, 22; 6 34; 11 36, 41, 43, 44; 29 27.  
*Rangifer tarandus*: 10 64; 14 100; 27 1, 6, 18-20; 29 41, 49, 50, 55, 57, 61, 62, 67, 88, 104; 32 34; 33 33; 34 31, 32, 36.  
*Rangifer tarandus granti*: 29 49, 62.  
 Rape, *Brassica napus*  
*Raphanus sativus*: 14 56.  
*Raphanus* spp.: 25 7; 28 8; 34 34, 39.  
*Rasbora daniconius neilgeriensis*: 17 32  
*Rasbora heteromorpha*: 15 46; 28 12.  
 Raspberry  
   Blooming red, *Rubus strigosus*  
   Various, *Rubus*  
 Rat  
   African giant, *Cricetomys gambianus*

Alexandrine, *Rattus alexandricus*  
 Black, *Rattus rattus*  
 Bush, *Rattus fuscipes*  
 Canefield, *Rattus sordidus*  
 Cotton, *Sigmodon hispidus*  
 Desert wood, *Neotoma lepida*  
 Grassland melomys, *Melomys burtoni*  
 Heermann's kangaroo, *Dipodomys heermanni*  
 Kangaroo, *Dipodomys* spp.  
 Laboratory white, *Rattus* spp.  
 Marsh rice, *Oryzomys palustris*  
 Morro Bay kangaroo, *Dipodomys heermanni morroensis*  
 Norway, *Rattus norvegicus*  
 Roof (see black), *Rattus rattus*  
 Swamp, *Rattus lutreolus*  
 Thick-tailed, *Zyomys argurus*  
 Tunney's, *Rattus tunneyi*  
 Water-, *Hydromys chrysogaster*  
 White-throated wood, *Neotoma albigula*  
 Wood, *Neotoma intermedia*  
 Ratsbane, *Dichapetalum toxicarium*  
*Rattus alexandricus*: 30 33.  
*Rattus fuscipes*: 30 33.  
*Rattus lutreolus*: 30 33.  
*Rattus norvegicus*: 5 24; 7 41; 13 14; 14 46, 47; 17 48-50; 29 91; 30 6, 34, 39.  
*Rattus rattus*: 29 43-45; 30 34, 39.  
*Rattus sordidus*: 30 34.  
*Rattus* spp.: 1 3-7, 10, 16; 2 iii, 19, 31; 3 11, 13, 15, 16, 23-25; 4 4, 8, 18; 5 iv, 26-29, 39, 41, 43, 44; 6 18, 27, 38-40; 7 41-43, 49, 54, 55, 58, 60; 8 24-29; 9 iv, 8, 13, 14, 24, 26, 30; 10 12, 65, 66; 11 1, 49, 51-53, 55, 63; 12 11, 69, 70, 73; 14 iii, 12-15, 55, 87, 95-97, 99, 108; 15 3, 4, 8, 10, 11, 52-64, 68; 17 2, 40-42, 53, 54; 18 12, 36-38, 42; 19 18, 29-31, 38-42, 44, 47; 20 24-26, 28; 21 4, 5, 36, 39-43; 22 2, 4, 16, 20-24; 23 9-11, 14, 35, 42-45, 48; 24 10, 11, 13, 28, 29, 34-36; 25 2, 3, 27, 30-32; 26 3, 9-15, 35, 44, 46, 49, 50, 77, 81, 82, 88-91; 27 1, 3, 6, 12, 18-20; 28 1, 6, 7, 15, 19-25; 29 42, 67, 84, 91, 92, 96, 97; 30 10-13, 34, 39, 41; 31 1, 11, 12, 54, 57-61; 32 8, 9, 31, 33, 34; 33 7-11, 33, 44, 45, 65, 67, 75, 76, 79-81; 34 1, 7-14, 30, 31, 35, 37, 38, 49, 52-59, 61, 62, 64, 65.  
*Rattus tunneyi*: 30 34.  
 Raven  
   Australian, *Corvus coronoides*  
   Common, *Corvus corax*  
   Little, *Corvus mellori*  
 Ray  
   Electric, *Torpedo* sp.  
   Thornback, *Raja clavata*  
   Various, *Raja* sp.  
 Razorbill, *Alca torda*

- Recurvirostra americana*: 5 20.  
 Redhead, *Aythya americana*  
 Redhorse, black, *Moxostoma duquesnei*  
 Redshank  
     Common, *Tringa totanus*  
     Icelandic, *Tringa totanus robusta*  
*Regulus satrapa*: 25 25.  
 Reindeer, *Rangifer tarandus*  
*Reithrodontomys humulis*: 29 92.  
*Reithrodontomys megalotis*: 30 38.  
*Reithrodontomys raviventris*: 30 40.  
*Reticulitermes flavipes*: 19 22.  
*Rhacomitrium* sp.: 34 32.  
*Rhepoxynius abronius*: 19 28.  
*Rheumobates* spp.: 34 24.  
*Rhinichthys osculus*: 32 28.  
*Rhinobatis lentiginosus*: 33 24.  
*Rhinogobius flumineus*: 21 15.  
*Rhinolophus ferrumequinum*: 31 47.  
*Rhinomugil corsula*: 17 35, 36.  
*Rhizoctonia solani*: 18 13; 23 19.  
*Rhizophora mangle*: 34 32.  
*Rhizophora* spp.: 1 12; 10 20.  
*Rhizopus* sp.: 22 8.  
*Rhizosolenia* sp.: 26 53, 85.  
*Rhodotorula* sp.: 34 40.  
*Rhyncostegium riparioides*: 23 21; 33 48.  
 Rice  
     Domestic, *Oryza sativa*  
     Wild, *Zizania aquatica*  
*Richmondia cardinalis*: 24 8.  
*Ricinus communis*: 23 19; 28 7.  
*Rissa tridactyla*: 7 21.  
*Rithropanopeus harrisi*: 4 10; 15 36, 45; 22 10; 25 16;  
     26 12, 58, 85.  
*Rivulus*, mangrove (fish), *Rivulus marmoratus*  
*Rivulus marmoratus*: 33 62.  
 Roach (fish), *Rutilus rutilus*  
 Robin  
     American, *Turdus migratorius*  
     European, *Erithacus rubecula*  
 Rosella, crimson, *Platycercus elegans*  
*Rostrhamus sociabilis*: 17 39, 40; 33 73.  
 Rotifer, *Asplanchna*, *Brachionus*  
*Rubus frondosus*: 26 38.  
*Rubus* sp.: 33 37.  
*Rubus strigosus*: 24 15.  
 Rudd, *Scardinius erythrophthalmus*  
*Ruppia maritima*: 20 8, 19.  
*Ruppia* spp.: 18 23; 23 21.  
*Rutilus rutilus*: 29 50.  
 Rye, *Secale cereale*  
 Rye, perennial, *Lolium perenne*  
*Rynchops niger*: 7 21, 32; 21 22.  
*Sabella pavonina*: 32 25.  
*Saccharomyces cerevisiae*: 21 42; 25 27; 28 8.  
*Saccharomyces* spp.: 17 19, 41.  
*Saccharum officinarum*: 3 1; 8 29; 18 1, 3, 41; 22 7, 24;  
     24 3, 10; 28 7.  
*Saccobranthus fossilis*: 3 9; 21 33; 33 62, 72.  
*Saccostrea cucullata*: 26 9, 21; 33 20.  
*Saccostrea* sp.: 32 14.  
 Saddleback, *Philesturnus carunculatus*  
 Safflower, *Carthamus tinctorius*  
 Sagebrush, big, *Artemisia tridentata*  
*Sagitta elegans*: 20 9.  
*Saguinus fuscicollis*: 9 1.  
*Saimiri sciurea*: 28 22, 23.  
*Saimiri* spp.: 6 18; 29 92.  
 Salamander  
     Eastern red-backed, *Plethodon cinereus*  
     Jefferson, *Ambystoma jeffersonianum*  
     Marbled, *Ambystoma opacum*  
     Spotted, *Ambystoma maculatum*  
     Tiger, *Ambystoma tigrinum*  
     Two-lined, *Eurycea bislineata*  
     Various, *Necturus*  
*Salix* spp.: 29 54, 56.  
*Salmo clarki*, see *Oncorhynchus clarki*  
*Salmo gairdneri*, see *Oncorhynchus mykiss*  
*Salmo salar*: 1 12, 13; 2 22; 5 26; 7 31, 48; 11 41, 43; 12  
     26; 15 32, 34; 17 33; 21 15; 23 12, 25, 26, 28, 29; 24  
     25; 25 19; 26 5, 26, 42, 63, 71, 84; 29 76; 31 27; 33  
     41, 62.  
*Salmo* spp.: 10 29.  
*Salmo trutta*: 3 9; 4 9; 5 36; 7 47, 49; 8 11; 11 33; 17 15;  
     21 33; 22 13; 23 12, 25; 26 63, 70, 84; 28 12; 29 28,  
     54, 61, 76, 79; 31 27; 32 28; 33 8, 62.  
 Salmon  
     Atlantic, *Salmo salar*  
     Chinook, *Oncorhynchus tshawytscha*  
     Chum, *Oncorhynchus keta*  
     Coho, *Oncorhynchus kisutch*  
     Kokanee, see Sockeye  
     Pink, *Oncorhynchus gorbuscha*  
     Sockeye, *Oncorhynchus nerka*  
     Various, Salmonidae  
*Salmonella* sp.: 2 31; 3 25; 4 18; 26 14; 28 24; 32 31.  
*Salmonella typhimurium*: 3 25; 6 30; 7 55; 8 17; 11 34,  
     49; 12 35; 17 41; 20 5; 21 42; 25 27; 28 8.  
 Salmonidae: 5 iii, 18; 7 10, 47, 54; 10 40; 15 34, 70; 17  
     18, 21.  
 Saltbush, *Atriplex* spp.  
*Salpa fusiformes*: 20 9.  
*Salvelinus alpinus*: 31 38.  
*Salvelinus fontinalis*: 1 13, 18, 27; 2 18, 20, 22; 4 14, 15,  
     16; 5 33; 6 26; 7 12, 31, 48, 49, 51; 9 10, 18, 20, 22;  
     10 29, 46, 49, 59-61, 70, 74; 12 49; 14 62, 63; 17 36;

- 18 28; 19 29; 21 33; 23 25, 26; 25 19; 26 26, 64; 29 28; 33 62; 34 45.
- Salvelinus namaycush*: 1 27; 3 9; 4 5; 5 27, 35; 6 12, 26; 7 27, 31, 47, 60, 61; 8 8, 11; 9 10; 10 29; 12 26; 13 9; 14 62; 15 32; 17 15; 20 8; 21 16; 29 28; 31 27, 28, 36; 33 62; 34 26, 45.
- Sambucus* spp.: 23 4.
- Sand dollar, *Dendraster excentricus*
- Sanddab, speckled, *Citharichthys stigmaeus*
- Sanderling, *Calidris alba*
- Sandpiper
- Solitary, *Tringa solitaria*
  - Spotted, *Actitis macularia*
  - Various, *Calidris*, *Erolia* spp.
- Saprolegnia* sp.: 34 39.
- Sarcophilus harrisi*: 30 11, 34, 37.
- Sarcophampus papa*: 14 3.
- Sargassum fluvitans*: 12 27.
- Sargassum* sp.: 12 27; 34 22, 33.
- Sauger, *Stizostedion canadense*
- Scallop
- Antarctic, *Adamussium colbecki*
  - Bay, *Argopecten irradians*
  - Pacific, *Chlamys ferrei nipponensis*
  - Rock, *Hinnites multirugosus*
  - Sea, *Placopecten magellanicus*
  - Various, *Chlamys*, *Mizuhopecten yessoensis*, *Pecten*
- Scaphirhynchus platyrhynchus*: 21 12, 13, 16, 26.
- Scardinius erythrophthalmus*: 6 31.
- Scarus gyttatus*: 26 25.
- Scaup
- Greater, *Aythya marila*
  - Lesser, *Aythya affinis*
- Sceloglaux albifascies*: 30 24.
- Scenedesmus acutiformes*: 33 49; 34 40.
- Scenedesmus costatum*: 17 22.
- Scenedesmus obliquus*: 12 44, 45; 29 71.
- Scenedesmus quadricauda*: 7 48; 15 38; 18 26; 21 29, 30; 23 21; 26 53.
- Scenedesmus* spp.: 31 51; 32 21.
- Scenedesmus subspicatus*: 33 49.
- Schistosoma mansonii*: 28 11.
- Schroederella* spp.: 26 53, 66, 85.
- Sciaenops ocellatus*: 33 3, 24, 62; 34 26.
- Sciurus carolinensis*: 2 14; 10 38; 21 26; 33 33; 34 31.
- Sciurus hudsonicus*, see *Tamiasciurus hudsonicus*
- Sciurus* spp.: 30 1.
- Sclerotium rolfsii*: 18 13.
- Scolopax minor*: 1 31; 3 18; 7 21; 29 63.
- Scolopax rusticola*: 29 59.
- Scomber scombrus*: 26 26.
- Scomberomorus cavalla*: 26 26.
- Scomberomorus maculatus*: 33 24
- Scombridae: 5 13.
- Scopthalmus aquosus*: 7 13, 31; 11 30; 12 32; 32 16.
- Scopthalmus maeoticus maeoticus*: 29 78.
- Scopthalmus maximus*: 26 72.
- Scorpaena porcus*: 29 78.
- Scorpaenichthys marmoratus*: 26 64, 65.
- Scoter, surf, *Melanitta perspicillata*
- Screech-owl, eastern, *Otus asio*
- Scripsiella faeroense*: 10 59; 33 49.
- Scrobicularia plana*: 2 6; 32 7, 14, 24; 34 24, 32.
- Scud, *Gammarus*, *Hyalella*
- Sculpin
- Fourhorn, *Myoxocephalus quadricornis*
  - Mottled, *Cottus bairdi*
  - Shorthorn, *Myoxocephalus scorpius*
- Scup, *Stenotomus chrysops*
- Scyliorhinus caniculus*: 26 26, 64.
- Sea cucumber, *Stichopus*
- Sea-eagle, white-tailed, *Haliaeetus albicilla*
- Sea lion
- California, *Zalophus californianus*
  - Northern, *Eumetopias jubata*
- Sea star (Asteroidea), *Pisaster brevispinus*
- Sea urchins, *Anthocidaris crassispina*, *Arbacia*, *Echinometra*, *Hemicentrotus* sp., *Lytechinus*, *Paracentrotus lividus*, *Strongylocentrotus*, *Tripneustes esculentus*
- Seal
- Australian fur, *Arctocephalus pusillus*
  - Bearded, *Erignathus barbatus*
  - Crabeater, *Lobodon carcinophagus*
  - Gray, *Halichoerus grypus*
  - Harbor, *Phoca groenlandica*, *Phoca vitulina*, *Pusa vitulina*
  - Harp, *Pagophilus groenlandica*
  - Hooded, *Cystophora cristata*
  - Leopard, *Hydrurga leptonyx*
  - Northern fur, *Callorhinus ursinus*
  - Ringed, *Phoca hispida*, *Pusa hispida*
  - Saimaa ringed, *Phoca hispida saimensis*
  - Spotted, *Phoca largha*
  - Weddell, *Leptonychotes weddell*
- Seaskaters (oceanic insects), *Halobates* spp., *Rheumobates* spp.
- Seatrout, spotted, *Cynoscion nebulosus*
- Sebertia acuminata*: 34 21.
- Secale cereale*: 5 2; 6 13; 11 26; 12 12; 24 36.
- Sedges, *Carex* spp.
- Seerasalmus* sp.: 29 39.
- Seiurus aurocapillus*: 25 24.
- Selenastrum capricornutum*: 12 45; 14 58, 71; 17 5, 22; 25 11; 26 53; 29 78; 31 51.
- Semibalanus balanoides*: 33 56.
- Semotilus margarita*: 33 62.
- Senecio jacobaea*: 19 41.

- Senecio* sp.: 33 10.  
*Sepia officinalis*: 32 13; 33 20, 52.  
*Sepiotheuthis australis*: 12 35.  
*Sergestes lucens*: 12 30.  
*Serinus canarius*: 17 39, 57; 23 31.  
*Seriola quinqueradiata*: 9 9.  
*Serranus cabrilla*: 33 24.  
*Sesarma cinereum*: 4 10; 18 33.  
*Sesarma heamatocheir*: 24 24.  
*Sesarma reticulatum*: 25 17.  
*Setaria faberii*: 26 38.  
*Setaria* sp.: 33 37.  
*Setonix brachyurus*: 30 34.  
 Shad  
     Gizzard, *Dorosoma cepedianum*  
     Threadfin, *Dorosoma petenense*  
     Various, *Dorosoma* spp., *Konosirus punctatis*  
 Shag, imperial, *Phalacrocorax atriceps*  
 Shark  
     Blue, *Prionace glauca*  
     Shortfin mako, *Isurus oxyrinchus*  
     Tope, *Galeorhinus galeus*  
     Various, *Carcharhinus* spp., *Mustelus*, *Sphyrna* spp.  
     White, *Carcharodon carcharius*  
     Whitetip, *Carcharhinus longimanus*  
 Sharks: 10 40, 74; 34 26, 35.  
 Shearwater, wedge-tailed, *Puffinus pacificus*  
 Shearwaters: 26 30; 33 26.  
 Sheep  
     Bighorn, *Ovis canadensis*  
     Domestic, *Ovis aries*, *Ovis* sp.  
 Shelduck, *Tadorna tadorna*  
 Shell  
     Ivory, *Buccinum striatissimum*  
     Pen, *Pinna nobilis*  
     Spindle, *Hemifusus* spp.  
 Shiner  
     Blacktail, *Notropis venustus*  
     Common, *Notropis cornutus*  
     Golden, *Notemigonus crysoleucas*  
     Spottail, *Notropis hudsonius*  
 Shoveler, northern, *Anas clypeata*  
 Shrew  
     Common, *Sorex araneus*  
     Least, *Cryptotis parva*  
     Long-tailed, *Sorex minutus*  
     Masked, *Sorex cinereus*  
     Short-tailed, *Blarina brevicauda*  
     Various, *Sorex* sp.  
 Shrike, loggerhead, *Lanius ludovicianus*  
 Shrimp  
     Aesop, *Pandalus montagui*  
     Brine, *Artemia salina*, *Artemia* sp.  
     Brown, *Penaeus aztecus*  
     Clam, *Eulimnadia* spp.  
     Freshwater, *Paratya australiensis*  
     Glass, *Palaemonetes kadiakensis*  
     Grass, *Palaemonetes pugio*, *P. vulgaris*  
     Korean, *Palaemon macrodactylus*  
     Mysid, *Holmesimysis*, *Metamysidopsis*, *Mysidopsis*,  
         *Mysis*  
     Pink, *Penaeus duorarum*  
     Sand, *Crangon allmanni*, *C. crangon*, *C. septemspinosa*  
     Tadpole, *Triops longicaudatus*  
     Various, *Crangon*, *Lyssmata*, *Metapenaeus ensis*,  
         *Palaemon*, *Paratya australiensis*, *Penaeopsis*  
         *joyneri*, *Penaeus*, *Sergestes lucens*  
     White, *Penaeus setiferus*  
 Shrimps: 5 17, 37; 6 35; 7 38, 47, 48; 9 iii, 8; 10 24; 12  
     29, 30, 81; 13 19; 15 37; 18 30; 26 21; 32 15; 34 29,  
     33.  
*Sialia sialis*: 21 19; 29 83.  
 Sicklepod, *Cassia* spp.  
*Siderastrea* spp.: 21 9.  
*Siganus cramin*: 26 25.  
*Sigara* sp.: 22 11.  
*Sigmodon hispidus*: 6 5, 15, 42; 24 8; 29 36, 42, 92, 93;  
     30 35.  
 Silkworm, *Bombyx mori*  
*Sillago bassensis*: 12 56.  
 Silverside  
     Atlantic, *Menidia menidia*  
     Inland, *Menidia beryllina*  
     Tidewater, *Menidia peninsula*  
*Simocephalus serrulatus*: 2 17; 9 10; 12 47; 21 31; 22  
     11.  
*Simocephalus* sp.: 4 9; 17 26.  
*Simulium* sp.: 14 31.  
*Simulium vittatum*: 25 13, 21.  
*Siphamia cephalotes*: 26 37.  
*Siphonurus lacustris*: 29 54.  
 Siphonoptera: 9 3; 13 1.  
 Sirenians: 26 33.  
*Sitophilus granarius*: 23 20.  
*Sitta carolinensis*: 30 24.  
 Skate, little, *Raja erinacea*  
*Skeletonema costatum*: 2 22; 12 50; 14 65; 15 38-40,  
     43, 45, 47; 17 22; 20 16; 24 17; 25 11; 26 53, 85;  
     32 20, 21, 72.  
 Skimmer, black, *Rynchops niger*  
 Skink, *Lerista pectorittata*, *Morethia boulengeri*,  
     *Tiliqua*  
 Skipper, mud, *Boleophthalmus dussumieri*  
 Skua, great, *Catharacta skua*  
 Skuas: 26 30  
 Skunk, striped, *Mephitis mephitis*  
 Skunks: 23 12; 30 38.  
*Skwala* sp.: 25 13.



- Slippersnail, common Atlantic, *Crepidula fornicata*
- Slug  
 Grey field, *Deroceras reticulatum*  
 Various, *Agriolimax reticulatus*, *Arion* spp.,  
*Deroceras*
- Smelt  
 Rainbow, *Osmerus mordax*  
 Top, *Atherinops affinis*
- Sminthopsis crassicaudata*: 30 35.  
*Sminthopsis macroura*: 30 35.
- Snail  
 Apple, *Pomacea paludosa*  
 Land, *Helix aspersa*, *Arianta arbustorum*  
 Mud, *Ilyanassa obsoleta*, *Nassarius obsoletus*,  
*Nassarius* sp.  
 Pond, *Cipangopoludina malleata*  
 Ram's horn, *Helisoma trivolvis*  
 Red, *Indoplanorbis exustus*  
 Various, *Amnicola* sp., *Ancylus fluviatilis*, *Aplexa*  
*hypnorum*, *Arcularia gibbosa*, *Arion* spp.,  
*Australorbis*, *Biomphalaria* spp., *Bulinus* spp.,  
*Campeloma decisum*, *Gillia altilis*, *Helisoma*, *Helix*,  
*Juga plicifera*, *Lanistes carinatus*, *Lymnaea*,  
*Melanoides* sp., *Mudalia potosensis*, *Murex*  
*brandaris*, *Neritina* sp., *Physa*, *Planorbis corneus*,  
*Pomacea*, *Thiara tuberculata*, *Viviparus*
- Snake  
 Garter, *Thamnophis* sp.  
 Gopher, *Pituophis catenifer*  
 Northern water, *Nerodia sipedon*  
 Various, *Elaphe obsoleta*  
 Water, *Natrix* sp., *Nerodia*  
 Western ribbon, *Thamnophis proximos*
- Snakehead, green, *Ophiocephalus punctatus*
- Snapper  
 Mangrove, *Lutjanus griseus*, *Lutianus griseus*  
 Various, *Lutianus fulviflamma*
- Solanum melongena*: 24 3.  
*Solanum* sp.: 24 3.  
*Solanum tuberosum*: 5 22; 12 6, 12; 14 27; 17 19; 21 5;  
 22 2, 24; 28 3.
- Sole  
 Dover, *Microstomus pacificus*  
 English, *Pleuronectes vetulus* (formerly *Parophrys*  
*vetulus*)  
 Flathead, *Hippoglossoides elassodon*  
 Sand, *Psettichthys melanostictus*  
 Various, *Limanda* sp., *Solea solea*, *Trinectes*  
*maculatus*  
*Solea solea*: 7 8; 15 44.  
*Solenopsis invicta*: 1 iii, 1, 11, 20, 21, 23, 24, 33; 13 1;  
 21 28; 24 14, 16.  
*Solenopsis* sp.: 19 23.  
*Solidago graminifolia*: 7 11.
- Somateria mollissima*: 1 32; 2 9; 6 14; 31 53; 32 16, 19;  
 33 27; 34 28.  
*Sorbus aucuparia*: 29 56.  
*Sorex araneus*: 14 47; 26 36, 37; 29 39, 57; 33 68; 34  
 31, 35.  
*Sorex cinereus*: 34 31.  
*Sorex minutus*: 34 31.  
*Sorex* sp.: 22 23; 33 33.  
*Sorghum*, *Sorghum halepense*, *Sorghum* spp., *Sorghum*  
*vulgare*  
*Sorghum halepense*: 3 22; 12 68; 21 6, 8; 22 2; 23 4, 12.  
*Sorghum* spp.: 23 14, 15, 19; 24 36; 28 7; 33 69.  
*Sorghum sudanense*: 23 4, 12, 19, 33; 33 69.  
*Sorghum vulgare*: 18 iii, 1, 3, 12, 41.  
 Soybean, *Glycine max*
- Sparrow  
 Chipping, *Spizella passerina*  
 House, *Passer domesticus*  
 Song, *Melospiza melodia*  
 Tree, *Passer montanus*
- Sparrowhawk, European, *Accipiter nisus*
- Spartina alterniflora*: 10 20; 12 53; 18 22, 26, 33; 34 22.  
*Spartina* spp.: 6 9; 34 33, 35.  
*Sparus macrocephalus*: 10 14.  
*Spermophilus beecheyi*: 30 23, 35, 38.  
*Spermophilus* spp.: 30 1, 3, 4, 38, 41.  
*Spermophilus variegatus*: 5 24; 33 34.  
*Sphaerium* sp.: 33 20.  
*Sphagnum* spp.: 10 22; 29 58.  
*Sphoeroides maculatus*: 27 8.  
 Sphingidae: 12 6.  
*Sphyrna* spp.: 10 29.
- Spiders, *Araneus umbricatus*, *Argiope aurantia*,  
*Chiracanthium mildei*, *Dysdera crocata*, *Lycosa* sp.,  
*Pardosa* sp.
- Spiderwort, *Aribidopsis thaliana*
- Spilosoma* spp.: 30 15.
- Spinach, *Spinacia oleracea*
- Spinacia oleracea*: 11 35; 24 6, 10; 32 20; 34 21.
- Spirodella oligorrhiza*: 22 10; 30 15.
- Spirogyra* sp.: 22 3; 28 8; 33 3.
- Spirorbis lamellora*: 26 59.
- Spirostomum ambiguum*: 32 22.
- Spisula solidissima*: 26 57; 32 24, 29.
- Spiza americana*: 24 6, 8.
- Spizella passerina*: 2 27; 25 24.
- Spodoptera eridania*: 23 20.
- Spodoptera littoralis*: 25 9, 10.
- Spodoptera litura*: 24 6.
- Sponge  
 Freshwater, *Ephydatia fluviatilis*, *Spongilla* sp.  
 Various, *Halichondria* sp.
- Spongilla* sp.: 26 5.
- Spoonbill, white, *Platalea leucorodias*

- Spot, *Leiostomus xanthurus*  
 Springtails, *Folsomia candida*, *Tullbergia granulata*  
 Spruce, *Picea* spp.  
*Squalus acanthias*: 12 32; 15 32; 33 25; 34 9, 45.  
 Squash, *Cucurbita* spp.  
*Squatina squatina*: 26 26.  
 Squawfish, northern, *Ptychocheilus oregonensis*  
 Squid, *Gonatopsis borealis*, *Illex illecebrosus*  
*argentinus*, *Ommastrephes bartrami*, *Sepioteuthis*  
*australis*, *Symplectoteuthis oualaniensis*  
 Squids: 6 10; 34 33.  
 Squirrel  
   California ground, *Spermophilus beecheyi*  
   Gray, *Sciurus carolinensis*  
   Ground, *Citellus* spp., *Spermophilus* spp.  
   Red, *Tamiasciurus hudsonicus*  
   Rock, *Spermophilus variegatus*  
   Various, *Sciurus*  
 Sriebe, *Astyanax bimaculatus*  
 Stanleya spp.: 5 6.  
 Starfish, *Asterias*, *Luidia clathrata*  
 Starling, European, *Sturnus vulgaris*  
 Steelhead, *Oncorhynchus mykiss*  
*Stelgidopteryx serripennis*: 14 40.  
*Stenella coeruleoalba*: 10 38, 43; 26 35; 31 22, 31; 33  
 29.  
*Stenonema* sp.: 32 25.  
*Stenotomus chrysops*: 31 50, 51; 34 26.  
*Sterna caspia*: 31 40, 44.  
*Sterna forsteri*: 4 6; 8 8, 13; 21 22; 31 44, 45, 60.  
*Sterna fuscata*: 5 14.  
*Sterna hirundo*: 2 10; 10 63; 14 82; 31 44, 53; 34 28, 35.  
*Sterna maxima*: 5 14.  
*Sterna nilotica*: 21 20.  
*Sterna paridisaea*: 7 22; 31 39, 44.  
*Sternotherus minor minor*: 29 32.  
*Sternotherus odoratus*: 29 32.  
*Stichopus japonicus*: 12 35.  
*Stichopus tremulus*: 26 70.  
 Stickleback  
   Fourspine, *Apeltes quadracus*  
   Threespine, *Gasterosteus aculeatus*  
 Stilt, black-necked, *Himantopus mexicanus*  
 Stitchbird, *Notiomystis cincta*  
*Stizostedion canadense*: 2 11; 21 12.  
*Stizostedion vitreum vitreum*: 2 11, 20; 6 26; 7 14; 10 29;  
 28 13; 31 37; 33 62.  
*Stolothrissa* sp.: 33 23.  
*Stomoxys calcitrans*: 24 6; 25 10.  
 Stork, white, *Ciconia ciconia*  
 Strawberry, *Fragaria vesca*  
*Strepera graculina*: 30 22, 24.  
*Streptococcus faecalis*: 32 21.  
*Streptococcus zooepidemicus*: 28 23.  
*Streptopelia capicola*: 1 9.  
*Streptopelia risoria*: 2 24; 7 36, 50, 53, 60; 8 23; 13 14;  
 14 82, 83; 31 53.  
*Streptopelia senegalensis*: 30 22.  
*Strigops habrotilus*: 30 24.  
*Strix aluco*: 31 44.  
*Strongylocentrotus franciscanus*: 26 59.  
*Strongylocentrotus nudus*: 33 56.  
*Strongylocentrotus purpuratus*: 26 45, 59, 85; 29 27; 34  
 43.  
*Strophites rugosus*: 18 32.  
 Sturgeon  
   Atlantic, *Acipenser oxyrhynchus*  
   Sevuga, *Acipenser stellatus*  
   Sheep, *Acipenser nudiiventris*  
   Shovelnose, *Scaphirhynchus platyrhynchus*  
*Sturnella magna*: 24 8.  
*Sturnella magna argutula*: 8 8.  
*Sturnella neglecta*: 9 29; 30 24.  
*Sturnus vulgaris*: 1 6; 2 13; 3 12; 7 22, 32, 36, 40; 9 14;  
 10 54, 62; 12 33; 13 13; 14 40, 41, 52, 84, 107; 21 19,  
 23, 27, 34-36; 23 14, 32; 27 9-12; 29 83; 30 16, 22.  
*Stylodrilus* sp.: 11 45.  
 Sucker  
   Bridgelip, *Catostomus columbianus*  
   Largescale, *Catostomus macrocheilus*  
   River carp, *Carpiodes carpio*  
   White, *Catostomus commersoni*  
 Sudex, *Sorghum bicolor* X *Sorghum sudanense*  
 Sugarcane, *Saccharum officinarum*  
*Sula bassanus*: 21 23, 27.  
*Sula leucogaster*: 7 23.  
*Sula* sp.: 26 42.  
*Sula sula*: 5 14.  
 Sunfish  
   Green, *Lepomis cyanellus*  
   Longear, *Lepomis megalotis*  
   Orangespot, *Lepomis humilis*  
   Redbreast, *Lepomis auritis*  
   Redear, *Lepomis microlophus*  
   Spotted, *Lepomis punctatus*  
 Sunflower, *Helianthus* spp.  
*Sus scrofa*: 29 38; 30 2, 5-7, 35, 37-39; 33 34.  
*Sus* spp.: 5 26, 28-30, 39, 44; 8 1, 5; 9 iv, 8, 13, 14, 16,  
 24, 27; 10 12, 54, 55; 12 6, 11, 70, 77, 81; 13 12; 14  
 86, 98, 99; 17 2, 16, 50; 18 36; 19 21, 31, 40, 42; 20  
 5; 21 5, 42; 23 4, 33, 34, 45; 25 2, 27, 31; 26 9, 10,  
 12, 35, 46, 50, 77, 81, 89; 29 42, 49, 63, 67, 93, 94,  
 96; 30 16, 24, 25, 35, 38, 41; 32 9; 33 2, 4, 9, 34, 39,  
 44, 45, 65, 68, 74, 75, 77, 80, 81; 34 1, 30, 31, 37, 38,  
 62.  
 Swallow  
   Barn, *Hirundo rustica*  
   Northern rough-winged, *Stelgidopteryx serripennis*

- Tree, *Tachycineta bicolor*  
 Welcome, *Hirundo neoxena*
- Swan  
 Mute, *Cygnus olor*  
 Trumpeter, *Cygnus buccinator*  
 Tundra, *Cygnus columbianus*
- Swine, *Sus* spp.  
 Swordfish, *Xiphias gladius*  
*Sylvilagus audubonii*: 30 38.  
*Sylvilagus floridanus*: 2 14; 7 41; 29 36; 33 37.  
*Sylvilagus* sp.: 12 71; 30 2.  
*Symiodinium* sp.: 29 65.  
*Symplectoteuthis oualaniensis*: 33 20.  
*Synedra* sp.: 26 66; 31 51.  
*Tabellaria* sp.: 26 66.  
*Tachycineta bicolor*: 21 23; 29 83; 31 44; 33 27, 42; 34 28, 35.  
*Tadorna tadorna*: 29 41.  
 Tadpoles: 12 11.  
 Takake, *Notornis mantelli*  
*Talitrus saltator*: 26 21.  
*Talorchestia deshayesii*: 26 21.  
*Talpa europea*: 5 24; 34 31.  
 Tamarin, *Saguinus fuscicollis*  
*Tamenthypnum* sp.: 34 32.  
*Tamias* spp.: 30 3.  
*Tamias striatus*: 17 51; 19 20; 29 93, 94.  
*Tamiasciurus hudsonicus*: 2 14; 34 31.  
 Tanager, scarlet, *Piranga olivacea*  
*Tanytus grodhausi*: 25 10.  
*Tanytarsus dissimilis*: 2 17; 5 31; 7 51; 14 60; 26 58, 84; 28 11; 32 25; 33 56.  
*Tanytarsus* sp.: 25 22.  
*Tapes decussatus*: 10 61.  
*Tapes japonica*: 32 13.  
*Tapes philippinarum*: 17 25; 21 10.  
*Tapes* sp.: 31 23.  
 Tapeworm: 12 3.  
*Taricha granulosa*: 29 79, 80.  
*Taricha torosa*: 21 17, 27.  
 Tasmanian devil, *Sarcophilus harrisi*  
 Tautog, *Tautoga onitis*  
*Tautoga onitis*: 34 35.  
*Tautogolabrus adspersus*: 32 20, 28.  
*Taxidea taxus*: 19 20; 23 4, 12; 30 4, 35, 39.  
 Tea, Labrador, *Ledum* sp.
- Teal  
 Blue-winged, *Anas discors*  
 Green-winged, *Anas carolinensis*
- Tellina tenuis*: 33 72.  
*Temora* spp.: 26 69.  
 Tench, *Tinca tinca*  
*Tenebrio molitor*: 25 10.
- Termite  
 Australian, *Mastotermes darwinensis*  
 Rhodesian, *Trinervitermes dispar*  
 Various, *Coptotermes*, *Heterotermes*, *Odontotermes*, *Reticulitermes flavipes*, *Microtermes*
- Tern  
 Arctic, *Sterna paradisaea*  
 Caspian, *Sterna caspia*  
 Common, *Sterna hirundo*  
 Forster's, *Sterna forsteri*  
 Gull-billed, *Gelochelidon nilotica*, *Sterna nilotica*  
 Royal, *Sterna maxima*  
 Sooty, *Sterna fuscata*  
*Terrapene carolina*: 1 21; 14 35; 29 32.  
*Tetraedron* sp.: 13 18.  
*Tetrahymena pyriformis*: 5 35; 7 45; 33 49.  
*Tetranychus mcdanieli*: 15 65.  
*Tetranychus urticae*: 15 65; 22 9; 24 14; 25 10.  
*Tetrao tetrix*: 29 59.  
*Tetraselmis chui*: 12 54.  
*Thais lapillus*: 2 6.  
*Thais* sp.: 33 73.  
*Thalassia testudinum*: 34 32.  
*Thalassiosira aestivalis*: 12 50.  
*Thalassiosira nordenskioldi*: 25 11.  
*Thalassiosira pseudonana*: 15 37, 39; 17 23; 24 17; 26 53, 67; 33 49.  
*Thalassiosira rotula*: 34 40, 47.  
*Thalassiosira* sp.: 32 20.  
*Thalassiosira weissflogii*: 25 11; 26 10.  
*Thamnophis proximos*: 24 6, 8.  
*Thamnophis* sp.: 11 49; 21 17, 27.  
*Themisto* spp.: 26 21; 33 21.  
*Theragra chalcogramma*: 21 17.  
*Thermonectes basillaris*: 25 12.  
*Thiara tuberculata*: 33 52.  
*Thielaviopsis basicola*: 23 13.  
*Thomomys* sp.: 9 1.  
 Thorn, box, *Lycium andersonii*
- Thrush  
 Grey shrike, *Colluricincla harmonica*  
 New Zealand, *Turnagra capensis*  
 Song, *Turdus philomelos*  
 Wood, *Hylocichla mustelina*
- Thunnus* spp.: 5 14; 10 40.  
*Thunnus albacares*: 20 9; 29 31.  
*Thunnus alalunga*: 29 30, 31.  
*Thunnus thynnus*: 28 3; 33 25.  
*Thylogale billardierii*: 30 5, 35, 37.  
*Thymallus arcticus*: 26 15, 64; 32 28; 33 62; 34 45.
- Tick  
 American dog, *Dermacentor variabilis*  
 Cattle, *Haemaphysalis longicornis*  
 Fever, *Boophilus* spp.

- Gulf Coast, *Amblyomma maculatum*  
 Lone star, *Amblyomma americanum*  
 Rocky mountain wood, *Dermacentor andersoni*  
 Tropical horse, *Anocentor nitens*  
*Tigriopus californicus*: 25 17.  
*Tigriopus japonicus*: 33 56.  
 Tilapia  
   Mozambique, *Tilapia* (also *Oreochromis*)  
     *mossambica*  
   Nile, *Oreochromis niloticus*  
   Various, *Tilapia*  
*Tilapia mossambica*: 14 49; 15 46; 24 25; 33 41.  
*Tilapia nilotica*: 34 45, 47.  
*Tilapia* sp.: 17 35.  
*Tilapia sparrmanii*: 26 64.  
*Tilapia zilli*: 26 64.  
*Tiliqua nigrolutea*: 30 17.  
*Tiliqua rugosa*: 30 11, 16, 17.  
 Timothy, *Phleum pratense*  
*Tinca tinca*: 33 6.  
*Tipula abdominalis*: 25 24.  
*Tipula* sp.: 4 9; 5 22.  
*Tisbe furcata*: 33 56.  
*Tisbe holothuriae*: 6 22; 26 12, 58, 84.  
 Tit, great, *Parus major*  
 Titmouse, tufted, *Parus biocolor*  
 Toad  
   American, *Bufo americanus*  
   Egyptian, *Bufo regularis*  
   European, *Bufo bufo*  
   Fowler's, *Bufo fowleri*, *Bufo woodhousei fowleri*  
   Giant, *Bufo marinus*  
   Gulf coast, *Bufo valliceps*  
   Narrow-mouthed, *Gastrophryne carolinensis*  
   Various, *Bombina variegata*, *Bufo*  
 Toadfish, Gulf, *Opsanus beta*, *Opsanus tau*  
 Toadflax, bastard, *Comandra* spp.  
 Tobacco, *Nicotiana tabacum*  
*Tolypothrix* sp.: 18 25.  
*Tolypothrix tenuis*: 18 14.  
 Tomato, *Lycopersicon esculentum*  
 Tomcod, *Microgadus tomcod*  
*Torpedo* sp.: 24 12.  
 Tortoise, gopher, *Gopherus polyphemus*  
*Tortrix viridana*: 31 39.  
*Torulopsis glabrata*: 34 40.  
 Towhee  
   Rufous-sided, *Pipilo erythrophthalmus*  
   Various, *Pipilo* spp.  
*Trachemys scripta*: 29 31, 80, 81.  
*Trachinotus carolinus*: 33 62.  
 Tree, tropical rainforest, *Dacryodes excelsa*  
 Trematodes, *Schistosoma*  
*Trematomus bernacchii*: 21 17.  
*Triaenodus tardus*: 3 21.  
*Trichechus manatus*: 7 25, 34; 33 29, 38, 42, 79.  
*Trichoderma viride*: 18 13.  
*Trichodina* sp.: 33 3.  
*Trichogaster pectoralis*: 3 21.  
*Trichosurus vulpecula*: 30 2, 5, 6, 8, 10, 15, 24, 36-38, 40.  
*Tridacna derasa*: 33 52, 70.  
*Tridacna maxima*: 11 28; 12 35.  
*Trifolium* sp.: 4 1; 19 13; 22 8, 24; 33 43.  
 Triggerfish, *Balistoides* spp.  
*Trigloch* spp.: 23 4.  
*Trinectes maculatus*: 1 14.  
*Trinervitermes dispar*: 6 14.  
*Tringa solitaria*: 7 23.  
*Tringa totanus*: 33 27.  
*Tringa totanus robusta*: 12 33.  
*Triops longicaudatus*: 25 17.  
*Tripneustes esculentus*: 34 25.  
*Triticum aestivum*: 2 12; 5 22; 9 25; 10 1; 11 25, 26; 12 12, 43; 18 1, 4, 41; 19 13; 22 2, 8; 28 3; 29 60, 69; 34 22.  
*Triticum cristatus*: 11 49.  
*Triticum* spp.: 25 7; 29 49.  
*Triticum vulgare*: 15 28.  
*Triturus cristatus*: 26 64.  
*Trogodytes aedon*: 29 83.  
*Tropisternus lateralis*: 25 12.  
*Tropocyclops prasinus mexicanus*: 26 58.  
 Trout  
   Brook, *Salvelinus fontinalis*  
   Brown, *Salmo trutta*  
   Cutthroat, *Oncorhynchus clarki* (formerly *Salmo clarki*)  
   Lake, *Salvelinus namaycush*  
   Rainbow, *Oncorhynchus mykiss* (formerly *Salmo gairdneri*)  
   Spotted sea, *Cynoscion nebulosus*  
 Trumpeter, six-lined, *Siphamia cephalotes*  
*Tubifex costatus*: 12 51.  
*Tubifex* sp.: 6 30; 14 32; 29 78.  
*Tubifex tubifex*: 3 10; 15 27, 45; 17 26; 33 21; 34 42.  
 Tui, *Prothemadera novae-seelandiae*  
*Tullbergia granulata*: 22 9.  
 Tuna  
   Bluefin, *Thunnus thynnus*  
   Japanese, *Scombridae*  
   Skipjack, *Euthynnus pelamis*  
   Various, *Thunnus* spp.  
   Yellowfin, *Thunnus albacares*  
 Tunas: 10 30; 14 34; 29 31.  
 Tunicates, *Ciona intestinalis*, *Cynthia claudicans*,  
   *Halocynthia roretzi*, *Podoclavella moluccensis*,  
   *Polycarpa pedunculata*, *Salpa fusiformes*

- Turbellarians, *Bothromestoma* sp., *Mesotoma* sp.  
 Turbot, *Scophthalmus maximus*, *S. maeoticus maeoticus*  
*Turdus merula*: 5 23; 26 30.  
*Turdus migratorius*: 2 12; 7 23; 12 56; 14 41; 19 16; 21 19; 34 28.  
*Turdus philomelos*: 29 55, 63.  
 Turkey, *Meleagris gallopavo*  
*Turnagra capensis*: 30 25.  
 Turnip, *Brassica rapa*  
*Tursiops geophyreus*: 33 29.  
*Tursiops truncatus*: 26 35; 33 29.  
 Turtle  
   Atlantic green, *Chelonia mydas*  
   Common box, *Terrapene carolina*  
   Common mud, *Kinosternon sabrubrum*  
   Common musk, *Sternotherus odoratus*  
   Loggerhead, *Caretta caretta*  
   Loggerhead musk, *Sternotherus minor minor*  
   Missouri slider, *Pseudemys floridana hoyi*  
   Peninsula cooter, *Pseudemys floridana peninsularis*  
   Pond slider, *Pseudemys scripta*  
   Slider, *Chrysemys scripta*, *Trachemys scripta*  
   Snapping, *Chelydra serpentina*  
 Turtle-dove, ringed, *Streptolia risoria*  
 Turtles: 29 80.  
 Tuskfish, scarbreast, *Choerodon azurio*  
*Tympanuchus cupido*: 10 52.  
*Tympanuchus cupido attwateri*: 7 23  
*Tympanuchus phasianellus*: 4 12.  
*Typha latifolia*: 20 8; 22 9, 10.  
*Typhlodromus* sp.: 22 9.  
*Tyto alba*: 7 53; 21 35; 27 9, 10; 30 24.  
*Uca minax*: 3 22.  
*Uca pugilator*: 2 23; 10 48, 61; 15 37, 43; 25 17, 20; 26 10, 68.  
*Uca* sp.: 13 19, 21; 18 30; 26 68; 33 73.  
*Uca tangeri*: 23 22.  
*Ulmus americana*: 15 28; 33 15.  
*Ulothrix* sp.: 26 66.  
*Ulva lactuca*: 29 25.  
*Ulva* sp.: 14 27; 26 53; 33 73.  
*Umbilicaria* sp.: 34 21.  
*Umbra limi*: 9 18.  
*Umbra pygmaea*: 6 13; 11 48.  
*Upeneus moluccensis*: 15 27.  
*Upeneus tragula*: 26 25.  
*Upupa epops*: 26 30, 43.  
*Uria aalge*: 7 23; 31 44, 45; 33 9, 42.  
*Uria lomvia*: 21 23, 27.  
*Urocyon cinereoargenteus*: 29 36; 30 36.  
*Uromastix hardwickii*: 29 81.  
*Uronema marinum*: 10 47.  
*Uronema nigricans*: 10 61.  
*Uronema* sp.: 14 59.  
*Urophycus chuss*: 11 30; 33 25.  
*Ursus maritimus*: 7 1, 25; 26 35; 31 34, 46, 48; 32 17; 33 8, 29, 38, 42.  
*Ursus* spp.: 23 12; 30 4, 36.  
*Uta stansburiana*: 29 81.  
*Vaccinium angustifolium*: 12 22; 33 34; 34 22.  
*Vaccinium myrtillus*: 29 56, 63.  
*Vaccinium pallidum*: 14 27.  
*Vaccinium* sp.: 29 50.  
*Vaccinium uliginosum*: 29 56.  
*Vaccinium vitis-idaea*: 29 56.  
*Vallisneria americana*: 18 17, 19.  
*Vallisneria gigantia*: 28 2, 10.  
*Vallisneria spiralis*: 28 10.  
*Vallisneria* spp.: 28 10.  
 Vaquita (porpoise), *Phocoena sinus*  
*Varanus gouldi*: 30 16, 17.  
*Varanus varius*: 30 17.  
*Venerupis pallustris*: 19 26.  
*Veromessor andrei*: 30 24.  
*Vespula germanica*: 30 15.  
*Vespula vulgaris*: 30 15.  
*Vicia faba*: 29 69; 33 46; 34 13.  
*Victorella* sp.: 32 14, 24, 25.  
*Vigna* sp.: 12 41; 23 15.  
*Villorita cyprinoides*: 33 52.  
*Villosa iris*: 33 52.  
 Vireo  
   Red-eyed, *Vireo olivaceus*  
   Warbling, *Vireo gilvus*  
*Vireo gilvus*: 25 25.  
*Vireo olivaceus*: 25 24.  
*Vitis* sp.: 5 22; 24 3.  
*Viviparus ater*: 14 14.  
*Viviparus bengalensis*: 17 28.  
 Vole  
   Bank, *Clethrionomys glareolus*  
   Brown-backed, *Clethrionomys rufocanus*  
   Creeping, *Microtus oregoni*  
   Field, *Microtus agrestis*  
   Levant, *Microtus guentheri*  
   Meadow, *Microtus pennsylvanicus*  
   Pine, *Pitymys pinetorum* (now *Microtus pinetorum*)  
   Prairie, *Micropterus ochrogaster*, *Microtus ochrogaster*  
   Singing, *Microtus miurus*  
   Various, *Arvicola terrestris*, *Clethrionomys rutilus*, *Lemmus* sp.  
*Vombatus ursinus*: 30 36, 38.  
*Vorticella* sp.: 26 53.  
*Vulpes fulva*: 29 36.  
*Vulpes macrotis*: 30 5.  
*Vulpes macrotis arsipus*: 30 36.  
*Vulpes macrotis mutica*: 30 40.

*Vulpes* sp.: 12 34; 14 99; 15 33; 23 12; 30 38; 31 46.

*Vulpes vulpes*: 10 39, 43, 64; 29 60; 30 5, 36, 37; 31 48; 33 34.

*Vultur gryphus*: 14 2; 23 32.

#### Vulture

Black, *Coragyps atratus*

King, *Sarcorhampus papa*

Turkey, *Cathartes aura*

#### Wallaby

Agile, *Macropus agilis*

Bennett's (also known as red-necked), *Macropus rufogriseus*

Banded hare-, *Lagostrophus fasciatus*

Rock, *Petrogale penicillata*

Tammar, *Macropus eugenii*

Western brush, *Macropus irma*

Walleye, *Stizostedion vitreum vitreum*

Walrus, *Odobenus rosmarus*

#### Warbler

MaGillivray's, *Oporornis tolmiei*

Townsend's, *Dendroica townsendi*

Various, *Dendroica* spp.

Warmouth, *Lepomis gibbosus*

#### Wasp

Common, *Vespula vulgaris*

German, *Vespula germanica*

Watermilfoil, Eurasian, *Myriophyllum spicatum*

*Watersipora cucullata*: 26 57.

#### Weed

Duck, *Lemna*, *Spirodella oligorrhiza*

Fire, *Epilobium angustifolium*

Hydrilla aquatic, *Hydrilla verticillata*

Lake, *Lagarosiphon major*

Loco, *Astragalus*

Pond, *Ceratophyllum*, *Najas guadalupensis*, *Navicula* sp., *Potamogeton*

Rat, *Palicourea marcgravii*

Sargassum, *Sargassum fluvitans*

Sea, *Chondrus crispus*, *Fucus*, *Porphyra* sp., *Sargassum*, *Ulva*

Submerged, *Elodea*, *Hydrodictyon*, *Najas* spp., *Spirogyra* sp., *Zannichellia* sp.

Ribbon, *Vallisneria spiralis*

Water, *Elodea*

Various, *Chenopodium album*, *Cladophora*

#### Weevil

Cotton boll, *Anthonomus grandis*

Granary, *Sitophilus granarius*

Rice water, *Lissorhopterus oryzophilus*

#### Whale

Beluga, *Delphinapterus leucas*

Cuvier's goosebeaked, *Ziphius cavirostris*

Fin, *Balaenoptera physalis*

Giant bottlenosed, *Berardius bairdii*

Gray, *Eschrichtius robustus*

Killer, *Orcinus orca*

Long-finned pilot, *Globicephala medaena*

Pilot, *Globicephala macrorhynchus*

Pygmy sperm, *Kogia breviceps*

Sperm, *Physeter catodon*, *Physeter macrocephalus*

Various, *Ziphius* sp.

White, *Delphinapterus leucas*

Wheat, *Triticum aestivum*, *Triticum* spp., *Triticum vulgare*

#### Whelk

Channeled, *Busycon canaliculatum*

Common dog, *Nucella lapillus*, *Nucellus lapillus*

Various, *Kelletia kelletia*, *Thais lapillus*

Waved, *Buccinum undatum*

Whelks: 26 21.

Whimbrel, *Numenius phaeopus*

Whistling-duck, fulvous, *Dendrocygna bicolor*

#### Whitefish

Lake, *Coregonus clupeaformis*

Mountain, *Prosopium williamsoni*

Round, *Prosopium cylindraceum*

Various, *Coregonus* spp.

Whiting, *Merlangius merlangius*, *Sillago bassensis*

Wigeon, American, *Anas americana*

Wildcelery, *Vallisneria americana*

Willow, *Salix* spp.

Wolf, *Canis lupus*

Wolffish, spotted, *Anarhichas minor*

Wolverine, *Gulo gulo*

#### Wombat

Common, *Vombatus ursinus*

Southern hairy-nosed, *Lasiorhinus latifrons*

Woodchuck, *Marmota monax*

#### Woodcock

American, *Scolopax minor*

Eurasian, *Scolopax rusticola*

Woodlice: 14 32, 48.

#### Woodpeckers

Acorn, *Melanerpes formicivorus*

Various, Picidae

#### Worm

Black cut, *Agrotis ipsilon*

Cotton leaf, *Spodoptera littoralis*

Earth, *Allolobophora*, *Eisenia*, *Lumbricus*, *Octochaetus*

Horn, Sphingidae

Lesser meal, *Alphitobius diaperinus*

Lug, *Arenicola cristata*

Manure, *Eisenia foetida*

Marine, *Nereis*, *Nephtys*

Oligochaete, *Lumbriculus variegatus*

Rag, *Hediste diversicolor*

Sand, *Nereis diversicolor*

- Silk, *Bombyx mori*  
 Southern army, *Spodoptera eridanea*  
 Tiger, *Eisenia foetida*  
 Tobacco horn, *Manduca sexta*  
 Various, *Limnodrilus*, *Nais* sp., *Neanthes arenaceodentata*, *Paranais* sp., *Spirorbis lamellora*, *Stylodrilus* sp., *Tubifex*  
 Worms: 6 44; 7 8, 28, 50; 14 35; 15 8, 15; 17 15; 21 8; 31 19.  
 Wren  
   Bush, *Xenicus longipus*  
   House, *Troglodytes aedon*  
   Rock, *Xenicus gilviventris*  
*Xenicus gilviventris*: 30 24.  
*Xenicus longipes*: 30 6, 24.  
*Xenopus laevis*: 5 31, 35; 11 49; 17 36; 26 9, 64, 65; 28 12; 29 79, 81; 30 17; 34 13, 14.  
*Xiphias gladius*: 5 14; 10 30; 33 25; 34 30.  
 Yeast, *Cryptococcus terreus*, *Rhodotorula* sp., *Saccharomyces*, *Torulopsis glabrata*  
 Yeasts: 3 26; 12 9, 41; 17 19; 34 13, 38, 65.  
 Yellowtail, *Seriola quinqueradiata* (also *Seriola lalandei*)  
 Yellowhead, *Mohoua ochrocephala*  
*Zalophus californianus*: 2 10; 5 25, 49; 10 39, 43; 14 52; 32 17, 19.  
*Zannichellia* sp.: 18 23, 24; 28 8.  
*Zapus princeps*: 6 15.  
*Zea mays*: 3 iii, 1, 4, 5, 15, 17, 21, 26-28; 4 19; 5 22; 6 13; 8 16; 9 1; 12 12, 43; 14 48, 56; 15 28; 18 iii, 1, 3, 6-8, 12, 15, 33, 41; 19 22, 45; 20 11, 13; 21 6; 22 2, 8; 23 3, 12, 19, 33; 24 2, 3, 15, 36; 25 7; 26 51; 28 7; 32 20; 33 15, 39, 43; 34 22.  
 Zebrafish, *Brachydanio rerio*  
*Zenaida* (also *Zenaidura*) *macroura*: 7 23, 50, 60; 10 35; 14 2, 85; 30 23.  
*Zingiber officinale*: 29 24.  
*Ziphius cavirostris*: 7 26; 31 31, 32.  
*Ziphius* sp.: 31 34.  
*Zizania aquatica*: 14 70.  
*Zostera marina*: 18 25; 26 18, 40, 66.  
*Zostera* spp.: 33 15, 38.  
*Zygaena filipendulae*: 23 15.  
*Zygaena trifolii*: 23 20.  
*Zygnema* sp.: 34 32.  
*Zylorhiza* spp.: 5 6.  
*Zyzomys argurus*: 30 36.

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